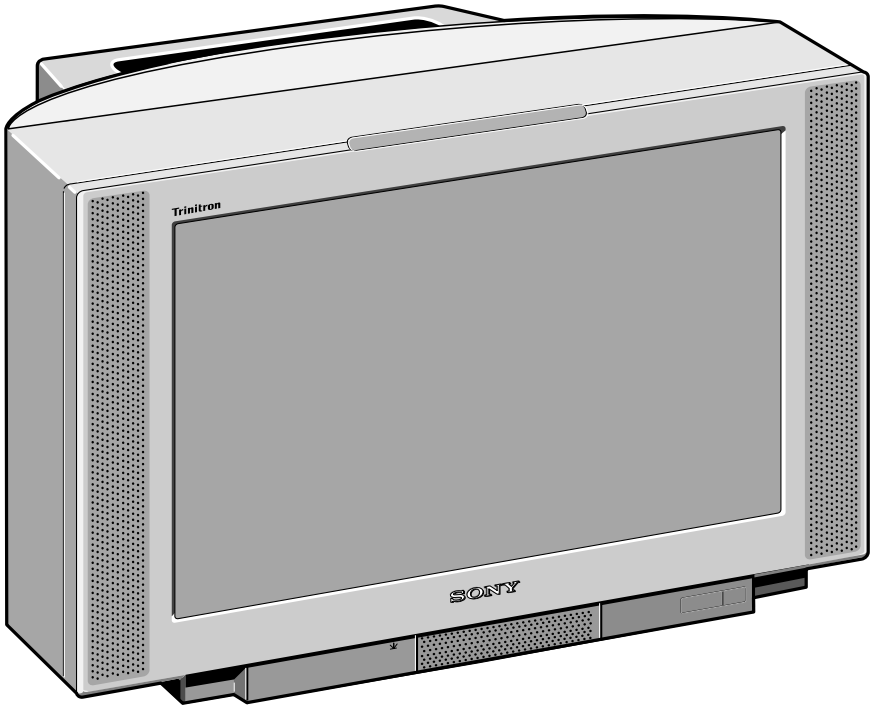
Self Diagnosis Supported model

SERVICE MANUAL

GE-1A CHASSIS

MODEL	COMMANDER	DEST	CHASSIS NO.	MODEL	COMMANDER	DEST	CHASSIS NO.
KV-28DS60U	RM-891	UK	SCC-Q21A-A	KV-32DS60U	RM-891	UK	SCC-Q21B-A



TRINITRON ® COLOR TV

SONY ®

MICROFILM

ITEM MODEL	Television System	Stereo System	Channel Coverage	Color System
UK	I	NICAM Stereo	UHF : B21-B69	PAL NTSC4.43, NTSC3.58 (VIDEO IN)

MODEL	28DS60U	32DS60U
Power Consumption	200W	200W

[PICTURE TUBE]

KV-28DS60 FD Trinitron WIDE
Approx. 71 cm (28 inches)
(Approx. 66cm picture measured diagonally)
102 degree deflection

KV-32DS60 FD Trinitron WIDE
Approx. 82 cm (32 inches)
(Approx. 76 cm picture measured diagonally)
102 degree deflection

Input/Output Terminals

[REAR]

- 1/→ 21-pin Euro connector (CENELEC standard).
  - Inputs for Audio and Video signals.
  - Inputs for RGB.
  - Outputs of TV Video and Audio signals.
- 2/→S 21-pin Euro connector
  - Inputs for Audio and Video signals.
  - Inputs for S video.
  - Outputs forVideo and Audio signals (selectable).
- 3/→S 21-pin Euro connector
  - Inputs for Audio and Video signals.
  - Inputs for S video.

[FRONT]

- 3 Video output - phono jack
- 3 Audio inputs - phono jacks
- 3 S Video input - 4 pin DIN
  Headphone jack : stereo minijack

Sound output	2x30W (Music Power)
Power requirements	220 - 240V
Dimensions	
KV-28DS60	Approx 773 x 501 x 526 mm (w/h/d)
KV-32DS60	Approx 867 x 564 x 558 mm (w/h/d)
Weight	
KV-28DS60	Approx 56.5kg
KV-32DS60	Approx 68.5kg
Supplied accessories	RM-891 Remote Commander (1) IEC designated R6 batteries (2)
Other features	NICAM, DNR, Dolby Digital Surround System, Graphic Equalizer, TELETEXT, Smartlink

[RM-891]

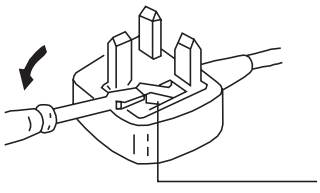
Remote control system	Infrared control
Power requirements	3V dc 2 batteries IEC designation R6 (size AA)
Dimensions	Approx 210x56x24mm (w/h/d)
Weight	Approx 110g (Not including battery)

Design and specifications are subject to change without notice.

Model Name / Item	KV-28DS60U	KV-32DS60U
Pal Comb	ON	ON
PIP	OFF	OFF
RGB Priority	ON	ON
Woofer Box	ON	ON
Scart 1	ON	ON
Scart 2	ON	ON
Front in (3)	ON	ON
Scart 4	ON	ON
Projector	OFF	OFF
AKB in 16:9 mode	ON	ON
Norm B/G	OFF	OFF
Norm I	ON	ON
Norm D/K	OFF	OFF
Norm AUS	OFF	OFF
Norm L	OFF	OFF
Norm SAT	OFF	OFF
Norm M	OFF	OFF
Teletext	ON	ON
Nicam Stereo	ON	ON
Language Preset	English	English

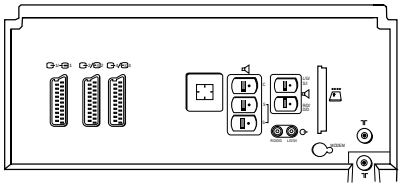
WARNING

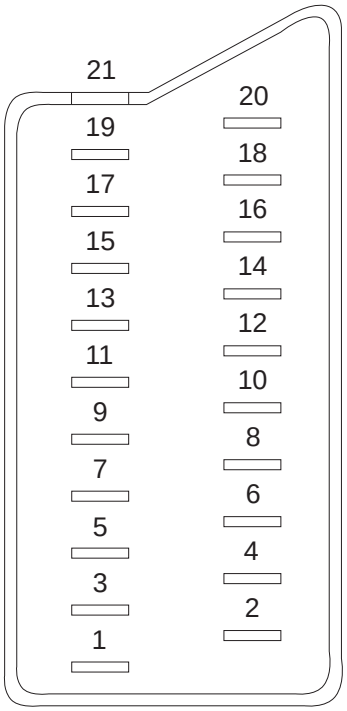
The flexible mains lead is supplied connected to a **B.S. 1363** fused plug having a fuse of **5 AMP** capacity. Should the fuse need to be replaced, use a **5 AMP FUSE** approved by **ASTA** to **BS 1362**, ie one that carries the ASTA mark.
IF THE PLUG SUPPLIED WITH THIS APPLIANCE IS NOT SUITABLE FOR THE OUTLET SOCKETS IN YOUR HOME, IT SHOULD BE CUT OFF AND AN APPROPRIATE PLUG FITTED. THE PLUG SEVERED FROM THE MAINS LEAD MUST BE DESTROYED AS A PLUG WITH BARED WIRES IS DANGEROUS IF ENGAGED IN A LIVE OUTLET SOCKET.
When an alternative type of plug is used it should be fitted with a **5 AMP FUSE**, otherwise the circuit should be protected by a **5 AMP FUSE** at the distribution board.



How to replace the fuse.
Open the fuse compartment with a screwdriver blade and replace the fuse.

21 pin connector

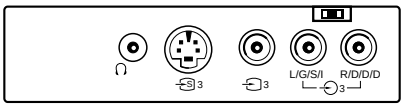




Pin No	1	2	4	Signal	Signal level
1	○	○	○	Audio output B (right)	Standard level : 0.5V rms Output impedence : Less than 1kohm*
2	○	○	○	Audio output B (right)	Standard level : 0.5V rms Output impedence : More than 10kohm*
3	○	○	○	Audio output A (left)	Standard level : 0.5V rms Output impedence : Less than 1kohm*
4	○	○	○	Ground (audio)	
5	○	○	○	Ground (blue)	
6	○	○	○	Audio input A (left)	Standard level : 0.5V rms Output impedence : More than 10kohm*
7	○	●	●	Blue input	0.7 +/- 3dB, 75 ohms positive
8	○	○	○	Function select (AV control)	High state (9.5-12V) : Part mode Low state (0-2V) : TV mode Input impedence : More than 10K ohms Input capacitance : Less than 2nF
9	○	○	○	Ground (green)	
10	○	○	○	Open	
11	○	●	●	Green	Green signal : 0.7 +/- 3dB, 75 ohms, positive
12	○	○	○	Open	
13	○	○	○	Ground (red)	
14	○	○	○	Ground (blanking)	
15	○	–	–	Red input	0.7 +/- 3dB, 75 ohms, positive
	–	○	○	(S signal Chroma input)	0.3 +/- 3dB, 75 ohms, positive
16	○	●	●	Blanking input (Ys signal)	High state (1-3V) Low state (0-0.4V) Input impedence : 75 ohms
17	○	○	○	Ground (video output)	
18	○	○	○	Ground (video input)	
19	○	○	○	Video output	1V +/- 3dB, 75ohms, positive sync 0.3V (-3+10dB)
20	○	–	–	Video input	1V +/- 3dB, 75ohms, positive sync 0.3V (-3+10dB)
	–	○	○	Video input Y (S signal)	1V +/- 3dB, 75ohms, positive sync 0.3V (-3+10dB)
21	○	○	○	Common ground (plug, shield)	

○ Connected ● Not Connected (open) * at 20Hz - 20kHz

Pin No.	Signal	Signal Level
1	Ground	
2	Ground	
3	Y (S signal) input	1V ± 3dB 75 ohm, positive Sync. 0.3V -3 + 10dB
4	C (S signal) input	0.3V ± 3dB 75 ohm, positive Sync.



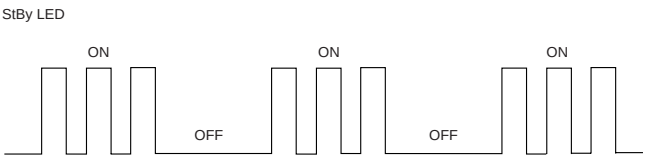
GE-1A SELF DIAGNOSTIC SOFTWARE

The identification of errors within the GE-1A chassis is triggered in one of two ways :- 1: Busy or 2: Device failure to respond to IIC. In the event of one of these situations arising the software will first try to release the bus if busy (Failure to do so will report with continuous flashing LED) and then communicate with each device in turn to establish if a device is faulty. If a device is found to be faulty the relevant device number will be displayed through the LED (Series of flashes which must be counted) See table 1., non fatal errors are reported using this method.

Diagnostic Item Description	No of times Standby LED Flashes	Probable cause Location	Detected Symptoms
Power does not turn on	Does not light	Power cord is not plugged in Fuse is burned out	Power does not come on No power is supplied to the TV AC power supply is faulty
+B Overvoltage(OVP)	2 times	H.OUT (Q502) is shorted. (D Board) IC603 Power IC is shorted. (D Board)	Power does not come on Load on power line has shorted
Vertical Deflection stopped	4 times	+15V is not supplied R519 open (D Board) -15V is not supplied R518 open (D Board) IC502 is shorted (D Board)	Vertical deflection pulse has stopped Power line has shorted

ERROR	LED ERROR COUNT
No error	00
Not allowed (may be confused with Sircs response flash!)	01
Over Current Protection	02
Over Voltage Protection	03
Vertical Protection	04
No function	05
H - Protection	06
Speaker Protection	07
MEGATEXT	08
NVM	09
Main colour decoder	10
Feature Box 1	11
D/A converter	12
Multi Component processor	13
Multi sound processor	14
DMUX	15
Feature Box 2	16

Flash Timing Example : e.g. error number 3



ERROR DETECTION MONITOR

Device acknowledge is used to check IIC errors. Device acknowledge is checked by sending an IIC start sequence during CRT power on. Each device is checked three times, if there is no acknowledge after every attempt, it will be regarded as an error.
There are three steps to check errors

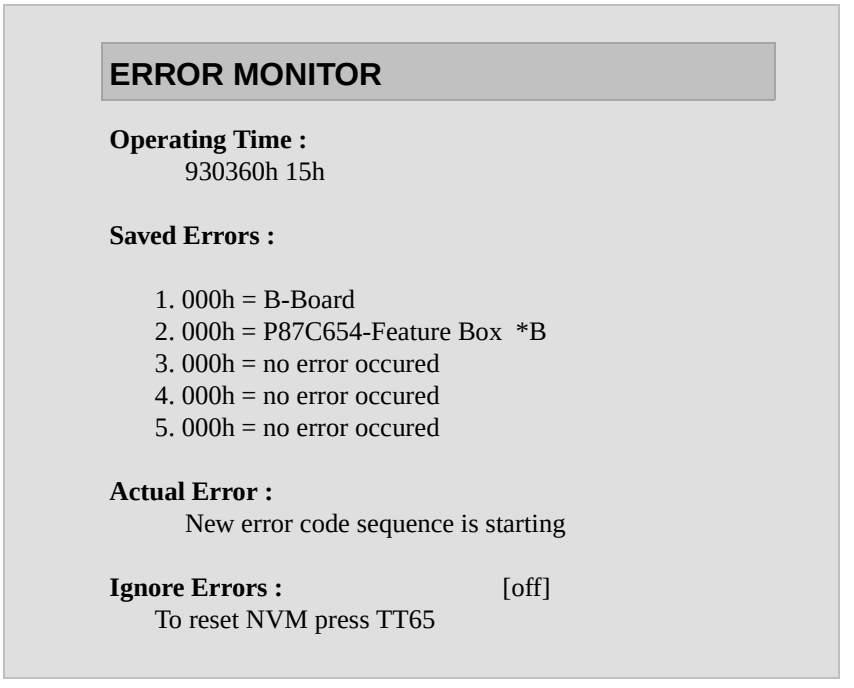
1. IIC line 0
   If all devices except the NVM are errors, IIC line 0 error is displayed
2. Board check
   If all devices mounted on one board have errors, board error is displayed
3. Each device check
   If IIC line error and board error are not detected then the device with an error is displayed

The detected errors can be displayed as follows:

1. Error Monitor Menu
2. Error Reader

1. ERROR MONITOR MENU

The error monitor menu is displayed by selecting TT22. The following menu will be displayed:


ERROR MONITOR
Operating Time :
930360h 15h
Saved Errors :
1. 000h = B-Board
2. 000h = P87C654-Feature Box *B
3. 000h = no error occured
4. 000h = no error occured
5. 000h = no error occured
Actual Error :
New error code sequence is starting
Ignore Errors : [off]
To reset NVM press TT65

2. ERROR READER DISPLAY

The error reader display is connected to the service connector to read actual error codes. The part number for the error reader display is S-188-900-10. Once an error has been detected it will then be displayed on the two digit error reader. The errors displayed refer to the following table :

	Send Data to Error Reader			
Error Code	Data high	Data Low	Error type	Function
00 00h	-	f0h	no device	
Gen.IIC Error				
00 01h	f0h	01h	IIC 0 line	
00 02h	f0h	02h	IIC 1 line	
Board Error				
01 00h	f1h	00h	A Board	
02 00h	f2h	00h	No function	
03 00h	f3h	00h	B Board	
04 00h	f4h	00h	No function	
05 00h	f5h	00h	D1 Board	
06 00h	f6h	00h	J Board	
07 00h	f7h	00h	Q Board	
Device Error				
A Board				
01 01h	f1h	01h	ST24C64	NVM doesn't respond
01 02h	f1h	02h	SDA5273/75	Megatext doesn't respond
01 03h	f1h	03h	CXA2101	MCP
01 04h	f1h	04h	SDA9361	Deflection doesn't respond
01 05h	f1h	05h	TVF-01-XXX	Tuner doesn't respond
01 06h	f1h	06h	No function	
01 07h	f1h	07h	MSP3410D	Audio processor
01 08h	f1h	08h	CXA1875	Port Expander for SCART doesn't respond
01 09h	f1h	09h	CXA1315	Port Expander for UYV doesn't respond
01 10h	f1h	10h	PCF8574	General Port Expander 1 doesn't respond
01 11h	f1h	11h	No function	
01 12h	f1h	12h	PCF8574	Interrupt Port Expander doesn't respond
01 13h	f1h	13h	PCF8593	Real Time Clock doesn't respond
01 14h	f1h	14h	No function	
02 01h	f2h	01h	TC9337	Audio Effect Processor (DSP) doesn't respond
B Board				
03 01h	f3h	01h	TDA9144	Colour Decoder doesn't respond
03 02h	f3h	02h	No function	
03 03h	f3h	03h	No function	
03 04h	f3h	04h	P87C654	Feature box1 doesn't respond
03 05h	f3h	05h	SDA9280	D/A Converter doesn't respond
03 06h	f3h	06h	P87C654	Feature box doesn't respond
D1 Board				
05 01h	f5h	01h	CXA1875	Port expander for MP, S-Cont doesn't respond
J Board				
06 01h	f6h	01h	CXA1855	AV-Switch Doesn't respond
06 02h	f6h	02h	TDA7309	Headphone processor doesn't respond

TABLE OF CONTENTS

Section	Title	Page
	Warning and Caution	3
	Self-Diagnostic Function	5
1. GENERAL		
	Quick Start Guide	9
	Overview	10
	Additional TV Features	11
	Teletext	17
	Event Schedule Guide	19
	Optional Connectors	20
2. DISASSEMBLY		
2-1.	Rear Cover Removal	21
2-2.	Chassis Assy Removal	21
2-3.	Service Position	21
2-4.	A1 Board Removal	21
2-5.	J Board Removal	22
2-6.	B Board Removal	22
2-7.	D1 Board Removal	22
2-8.	H Bracket Removal	22
2-9.	Picture Tube Removal	23
3. SET-UP ADJUSTMENTS		
3-1.	Beam Landing	24
3-2.	Convergence	25
3-3.	Focus	27
3-4.	Screen [G2] White Balance	27
4. CIRCUIT ADJUSTMENTS		
4-1.	Electrical Adjustments	29
4-3.	Test Mode 2	31
5. DIAGRAMS		
5-1.	Block Diagram (1)	33
	Block Diagram (2)	37
	Block Diagram (3)	41
	Block Diagram (4)	45
	Block Diagram (5)	49
	Block Diagram (6)	54
5-2.	Circuit Board Location	59
5-3.	Schematic Diagrams and Printed Wiring Boards	59
	* C Board	61
	* A Board	69
	* B Board	81
	* A1 Board	90
	* H Board	95
	* D Board	101
	* VM Board	105
	* N Board	109
	* D2 Board	123
	* F1 Board	125
	* D1 Board	131
	* J Board	136
5-4.	Semiconductors	139
5-5.	IC Blocks	142
6. EXPLODED VIEWS		
6-1.	Chassis	144
6-2.	Picture Tube	145
7. ELECTRICAL PARTS LIST		147

CAUTION

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR THE CARBON PAINTED ON THE CRT, AFTER REMOVAL OF THE ANODE CAP

WARNING !!

AN ISOLATING TRANSFORMER SHOULD BE USED DURING ANY SERVICE WORK TO AVOID POSSIBLE SHOCK HAZARD DUE TO LIVE CHASSIS. THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE POWER LINE.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARKED ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION

APRES AVOIR DECONNECTE LE CAP DE'LANODE, COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.

ATTENTION !!

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÁSSIS SOUS TENTION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÈ LORS DE TOUT DÈPANNAGE. LE CHÁSSIS DE CE RÈCEPTEUR EST DIRECTMENT RACCORDÈ Á L'ALIMENTATION SECTEUR.

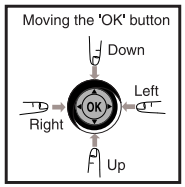
ATTENTION AUX COMPOSANTS RELATIFS Á LA SÈCURITÈ !!

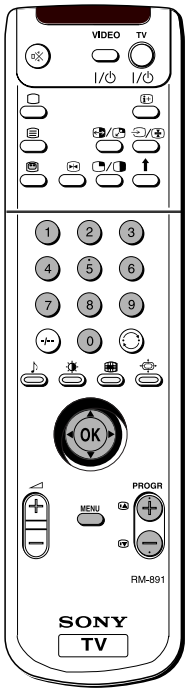
LES COMPOSANTS IDENTIFIÈS PAR UNE TRAME ET PAR UNE MARQUE ⚠ SUR LES SCHÈMAS DE PRINCIPE, LES VUES EXPLOSÈES ET LES LISTES DE PIECES SONT D'UNE IMPORTANCE CRITIQUE POUR LA SÈCURITÈ DU FONCTIONNEMENT, NE LES REMPLACER QUE PAR DES COMPSANTS SONY DONT LE NUMÈRO DE PIÈCE EST INDIQUÈ DANS LE PRÈSENT MANUEL OU DANS DES SUPPLÈMENTS PUBLIÈS PAR SONY.

The operating instructions mentioned here are partial abstracts from the Operating Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

6. Automatically Tuning the TV

You need to tune the TV to receive channels. By following the instructions below, this TV will automatically search and store all available channels for you. If at any time when using this menu you want to return to the normal TV picture, press the MENU button.





1 Press the MENU button on the remote control to display the menu on the TV screen.

2 Move the OK button on the remote control DOWN to select the symbol on the menu screen then move RIGHT to enter the `PRESET' menu.

3 Move the OK button DOWN to select "Programme Setup" then move RIGHT to enter the `PROGRAMME SETUP' menu.

4 Move the OK button RIGHT to highlight the brackets then move repeatedly DOWN to select `Digital' if you wish to view digital channels or `Analogue' if you wish to view analogue channels.

5 Press the OK button to confirm then move LEFT to display the PRESET menu.

6 Move the OK button UP to select `Auto Programme' then move the OK button RIGHT to display the "AUTO PROGRAMME" menu.

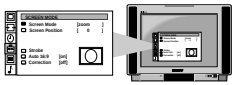
7 Press the OK button to start the automatic tuning process. The word `searching' now flashes on the menu screen and the TV starts to store all available channels. As the TV is searching, the bottom right corner of the menu screen displays its progress. Please be patient and do not press any buttons.

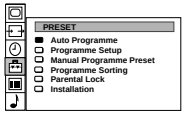
8 When the autotune procedure is complete, the PRESET menu appears on the screen and the channel currently being broadcast on programme 1 is displayed.

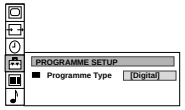
9 Press the MENU button to remove the `PRESET' menu from the TV screen. You can now view the channels by pressing the PROGR+/- or the numbered buttons on the remote control.

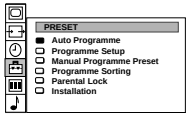
Notes:

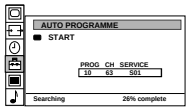
- If you wish to stop the "Autotune" procedure, press the OK button then the MENU button on the remote control.
- If, after tuning is complete, no digital programme is displayed on the TV, repeat steps 1-9 but select `Analogue' in the Programme Setup menu screen. When digital programmes become available in your area, repeat steps 1-9 above and select `Digital' in the Programme Setup menu screen.

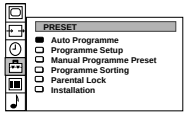


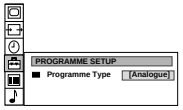




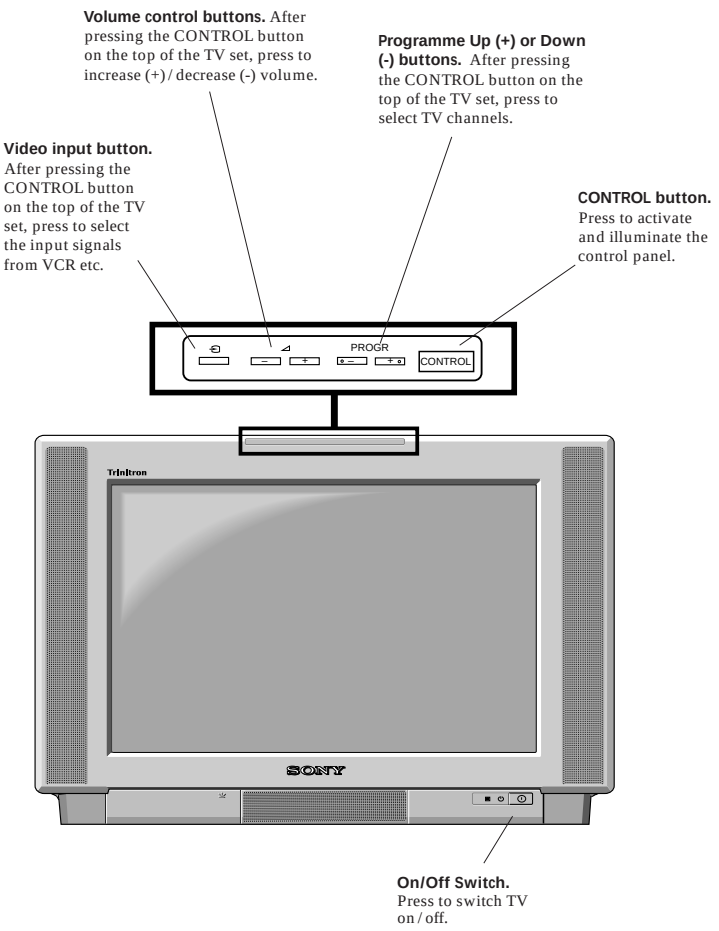








Overview of the TV Set Functions


Volume control buttons. After pressing the CONTROL button on the top of the TV set, press to increase (+) / decrease (-) volume.
Programme Up (+) or Down (-) buttons. After pressing the CONTROL button on the top of the TV set, press to select TV channels.
Video input button. After pressing the CONTROL button on the top of the TV set, press to select the input signals from VCR etc.
CONTROL button. Press to activate and illuminate the control panel.
PROGR
CONTROL
Trinitron
SONY
On/Off Switch. Press to switch TV on / off.

Overview of the Remote Control Buttons

To Mute Sound

Press to mute TV sound. Press again to restore the sound.

VCR On/Off Button

Press to temporarily switch off VCR (if Sony VCR connected). Press again to switch on VCR.

To Return to TV Mode

Press to return to the normal operation from teletext mode or standby mode.

These buttons have no function.

To Select Teletext

Press to select Teletext mode.

To Select ESG

Press to display the Event Schedule Guide. Press again to remove display.

To Freeze the picture

Press to freeze the picture.
Press again to cancel freeze.

To Select Channels

Press numbered buttons to select channels.

For double-digit programme numbers, e.g. 23, press -/-- first, then the buttons 2 and 3. If you enter an incorrect first digit, this should be corrected by entering another digit (0 - 9) and then selecting -/-- button again to enter the programme number of your choice.

To Display Sound Menu

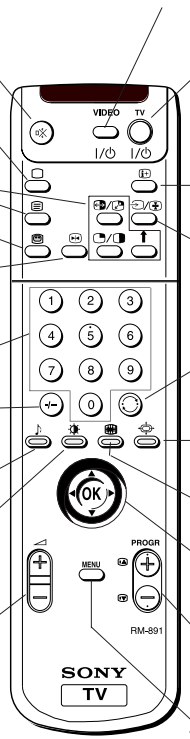
Press to change the sound settings. Press again to remove the display.

To Display Picture Menu

Press to change the picture settings. Press again to remove the display.

To Adjust TV Volume

Press to adjust the volume of the TV.



To Temporarily Switch Off TV

Press to temporarily switch off TV. Press again to switch on TV from standby mode.
To save energy we recommend switching off completely when TV is not in use.
NOTE: After 15 -30 minutes without a TV signal and without any button being pressed, the TV switches automatically into standby mode.

To Reveal On Screen Information

Press to reveal all on-screen indications. Press again to cancel.

To select input signal or freeze teletext

Press to select inputs from the TV sockets (see Using Optional Equipment section).
In teletext mode, press to freeze the displayed page. Press once again to cancel.

To Return To Previous Channel

Press to return to the previous channel you were watching. **Note:** This can be done only after watching the present channel for 5 seconds.

To Change Screen Format

Press to change the size of the screen.

This button can be used in Teletext mode only. Please see Teletext section of manual for details.

To Select Menu Items

Use this OK button to select options available in the menu system of the TV.

To Select Channels

Press to select channels.

To Display the Menu

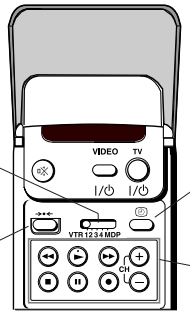
Press if you wish to use the TV menu system. Press again to remove the menu from the TV screen.

To Control Other Sony Equipment

With this selector you can control other Sony equipment. Open the remote control lid and set the selector according to the type of equipment you want to control then use the buttons on the remote control to operate the equipment:
VTR1 : Sony Beta VCR
VTR2 : Sony 8mm VCR
VTR3 : Sony VHS VCR
VTR4 : Sony Digital VCR
MDP : Sony Multi Disc Player

To Reset to Factory Settings

Open the remote control lid and press to return picture and sound levels to factory settings.



To Display the Time

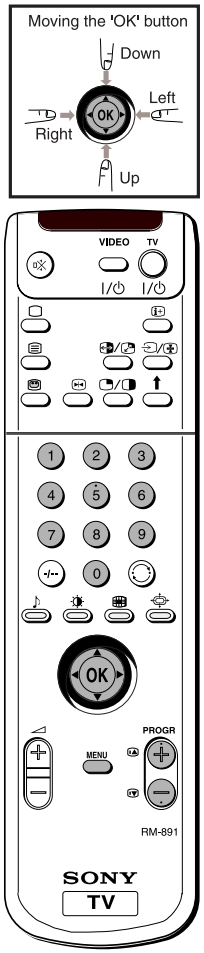
Open the remote control lid and press to display the time on screen.

To Operate Video Equipment

Open the remote control lid and press these buttons to operate your video equipment (please refer to your VCR manual).

Selecting Analogue or Digital Channels

You have the option to view either digital channels or analogue channels.



1 Press the MENU button on the remote control to display the menu on the TV screen.

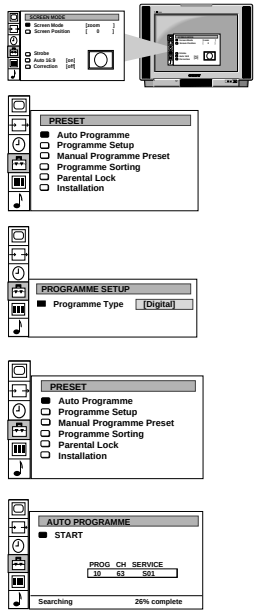
2 Move the OK button on the remote control DOWN to select the symbol on the menu screen then move RIGHT to enter the `PRESET' menu.

3 Move the OK button DOWN to select “Programme Setup” then move RIGHT to enter the `PROGRAMME SETUP' menu.

4 Move the OK button RIGHT to highlight the brackets then move repeatedly DOWN to select `Digital' if you wish to view digital channels or `Analogue' if you wish to view analogue channels.

5 Press the OK button to confirm your selection.

6 You can now view the channels by pressing the PROGR+/- or the numbered buttons on the remote control.



Selecting Digital/Analogue Channels via Remote Control

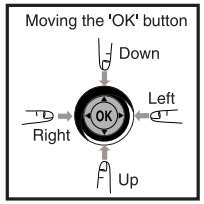
1 Press the OK button on the remote control to display the programme table on the TV screen.

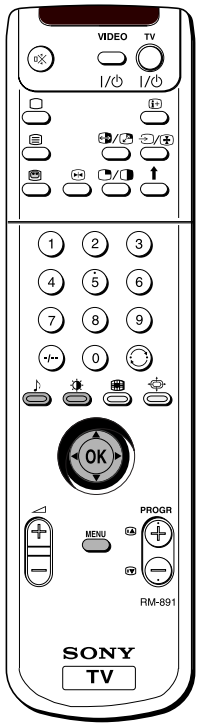
2 Push the joystick UP or DOWN to select `Digital/ Analogue' then move RIGHT to enter your option.

3 Move the joystick UP or DOWN to select `Digital' if you wish to view digital channels or `Analogue' if you wish to view analogue channels.

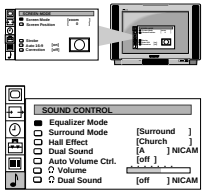
Adjusting the Picture

Although the picture is adjusted at the factory, you can modify it to suit your own taste.





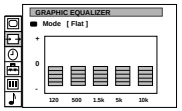
1 Press the MENU button on the remote control to display the menu on the TV screen.
2 Move the OK button on the remote control DOWN to select the ♪ symbol on the TV screen then move RIGHT to display the `PICTURE CONTROL' menu on the TV screen.
3 Move the OK button UP or DOWN to select the item on the screen you wish to adjust. For a description of the menu items and their effects, see the following table.
4 Move the OK button RIGHT to highlight the settings.
5 Adjust the setting by moving the OK button UP, DOWN, LEFT or RIGHT.
6 As soon as you have adjusted the item, press the OK button to confirm.
7 Repeat steps 3 to 6 to adjust the other items.
8 Press the MENU button to remove the display from the TV screen.



Picture Control

Item	Effect/Operation
Picture Mode	Select between the following sound settings ▼ Personal (for individual settings) Movie (for films) ▲ Live (for live broadcasts)
Contrast	◀ Less ▶ More
Brightness*	◀ Darker ▶ Brighter
Colour*	◀ Less ▶ More
Hue**	◀ Greenish ▶ Reddish
Sharpness*	◀ Softer ▶ Sharper
Reset	Resets picture to factory preset levels
AI (Artificial Intelligence)	▼ Off:normal ▲ On:rautomatic optimization of contrast level according to the TV signal.
Noise Reduction	▼ Off:normal ▲ On:reduces picture noise in case of a weak broadcast signal.
100Hz Mode	▼ 1:Normal ▲ 2:LFR (Line Flicker Reduction) off

* Only if "Personal" is selected in `Picture Mode`.
** Available for NTSC colour system only.



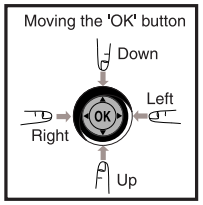
Changing Picture and Sound Modes Quickly

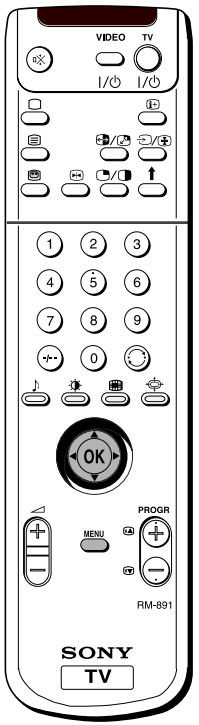
You can quickly change the Picture Mode or the Equalizer Mode without entering the `PICTURE CONTROL` or `SOUND CONTROL` menu screens.

1 Press the * symbol on the remote control for picture modes or the * symbol for equalizer modes.
2 Move the OK button on the remote control UP or DOWN to select the desired mode.
3 Press * or * again to remove the display from the TV screen.

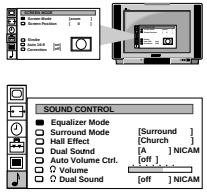
Adjusting the Sound

Although the sound is adjusted at the factory, you can modify it to suit your own taste.





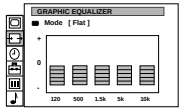
1 Press the MENU button on the remote control to display the menu on the TV screen.
2 Move the OK button on the remote control DOWN to select the ♪ symbol on the TV screen then move RIGHT to enter the `SOUND CONTROL' menu on the TV screen.
3 Move the OK button UP or DOWN to select the item on the screen you wish to adjust. For a description of the menu items and their effects, see the following table.
4 Move the OK button RIGHT to highlight the settings.
5 Adjust the setting by moving the OK button UP, DOWN, LEFT or RIGHT.
6 As soon as you have adjusted the item, press the OK button to confirm.
7 Repeat steps 3 to 6 to adjust the other items.
8 Press the MENU button to remove the display from the TV screen.



Sound Control

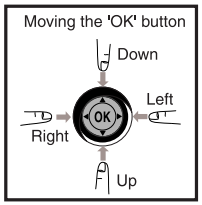
Item	Effect/Operation
Equalizer Mode	Select between the following sound settings ▲ Personal Vocal Jazz Rock Pop ▼ Flat (fixed setting, cannot be adjusted)
Equalizer adjustment	You can adjust the mode selected in Equaliser mode by cutting and boosting the 5 selected frequency bands. Only the changes made in Personal can be stored, the others return to factory setting. Select the desired bar by moving the OK button UP, DOWN, LEFT or RIGHT then press the OK button to confirm.
Surround Mode	▲ Off Hall ▼ Pro Logic
*Hall Effect	▲ Stadium Hall Church ▼ Disco
Dual Sound	• For a bilingual broadcast: A for channel 1◀ ▶B for channel 2 • For a stereo broadcast: Stereo ◀ ▶ Mono
**Auto Volume Control	$ On: volume level of the channels will stay the same independent of the broadcast signal (e.g. in case of advertisements) 4 Off: volume level changes according to the broadcast signal
Headphones 2 Volume 2 Dual Sound	Less ◀ ▶ More • For a bilingual broadcast: A for channel 1◀ ▶B for channel 2 • For a stereo broadcast: Stereo◀ ▶Mono

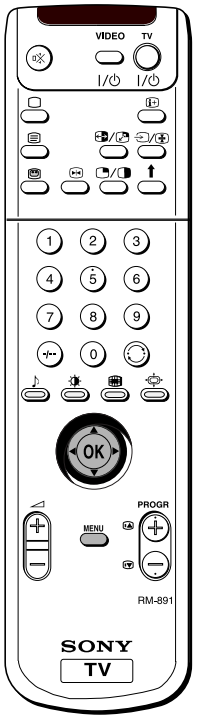
* Only if "Hall" is selected in Surround Mode.
** Only if Surround Mode is switched to "off"



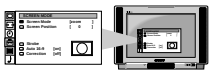
Setting up Dolby ProLogic

Before listening to Dolby Surround sound, you can adapt the Dolby features to suit your own taste. It is normal to set up the levels and modes of the speakers only when installing the TV and the speakers or when changing the position of the speakers.

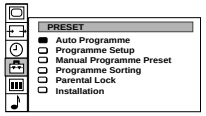




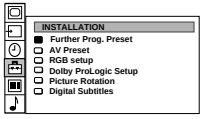
1 Press the MENU button on the remote control to display the menu on the TV screen.



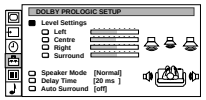
2 Move the OK button on the remote control DOWN to select the symbol on the TV screen then move to RIGHT to confirm.



3 Move the OK button DOWN to select `Installation` then move the OK button RIGHT to enter.



4 Move the OK button DOWN to select `Dolby ProLogic Setup` then move RIGHT to enter.



5 Select `Level Settings` by moving the OK button UP or DOWN. Move the OK button to RIGHT to enter.

6 Select Left (left speaker), Centre (centre speaker), Right (right speaker) or Surround (surround speakers)by moving the OK button DOWN then move the OK button RIGHT to confirm.

7 Adjust the level by moving the OK button RIGHT or LEFT.

8 After you have adjusted the level, press the OK button to confirm.

9 Repeat steps 6 to 8 if you wish to adjust the sound levels of the other speakers (from your sitting position the sound output from all speakers should balance).

10 Move the OK button LEFT.

11 Select `Speaker mode` by moving the OK button DOWN then move the OK button RIGHT to enter.

12 Push the OK button repeatedly DOWN to select:

Normal	–	all speakers are activated
3 Wide	–	surround speakers are not used, centre speaker carries full frequency response
3 Normal	–	surround speakers are not used
Wide	–	wider bandwidth for centre speaker
Phantom	–	centre speaker is not used
Normal	–	all speakers are activated

Press the OK button to confirm your choice.

13 Select 'Delay Time' by moving the OK button DOWN then move to RIGHT to confirm. Adjust the delay time of the surround speakers by moving the OK button UP or DOWN (e.g 20 ms for standard rooms, 30 ms for small rooms)
15 ms n 20 ms n 25 ms n 30 ms

Press the OK button to confirm your choice.

14 Select 'Auto Surround' by moving the OK button DOWN then move to RIGHT to confirm. Move the OK button DOWN to select:

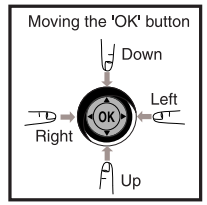
On - When receiving a Dolby Surround encoded programme, the TV switches automatically to Dolby Surround sound (depending on availability of service by broadcaster).
Off - normal

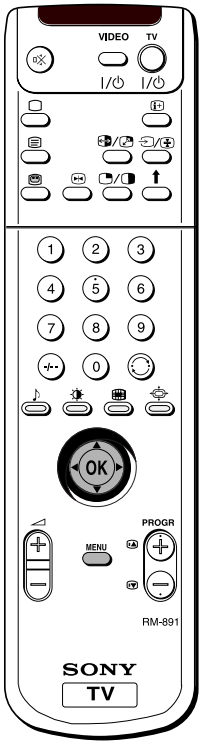
Press the OK button to confirm your choice.

15 Press the MENU button on the remote control to remove the menu from the TV screen.

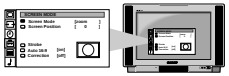
Operating Screen Mode

Using this Screen Mode feature you can change the aspect ratio of the screen or reproduce the main picture image by image (Strobe function).

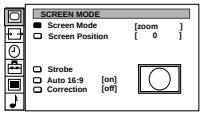




1 Press the MENU button on the remote control to display the menu on the TV screen.



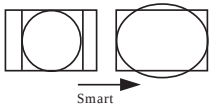
2 Move the OK button on the remote control RIGHT to select `Screen Mode', then move to RIGHT to select the brackets. Move the OK button repeatedly UP or DOWN to select one of the following modes:

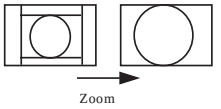


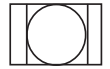
- smart - imitation of wide screen effect (16:9) for 4:3 broadcasts.
- wide - for 16:9 broadcasts
- zoom - imitation of wide screen effect (16:9) for movies broadcast in cinemascopic format.

  In zoom mode and 14:9 mode the top and bottom of the picture are cut off. Using `Screen position' you can move the screen up- or downwards in order to see the cut-off parts (e.g. to read subtitles). Move the OK button DOWN to select `Screen Position' then move to RIGHT to confirm. Move the OK button UP or DOWN to adjust the screen position (-4 to +4).

  Press the OK button to confirm.
- 14:9 - compromise between 4:3 and 16:9 format
- 4:3 - conventional 4:3 picture







3 Press the OK button to confirm the selection.

4 Strobe Mode
Move the OK button DOWN to select `Strobe'. Press the OK button to confirm. The TV picture is now displayed image by image, creating a slow motion effect. Move the OK button UP or DOWN to select the speed of the motion. Press the OK button to cancel the strobe mode.

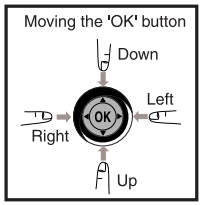
5 Auto 16:9
Move the OK button DOWN to select `Auto 16:9' then move RIGHT to confirm.
Move the OK button DOWN to select `On' for automatic selection of format or `Off' for normal mode. Press OK button to confirm.

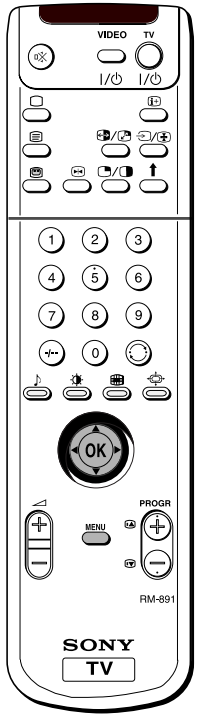
6 Correction (only for Auto 16:9)
In case of automatic format detection there are two possibilities for 4:3/14:9 signals: Set Correction to `on' if you wish Smart mode to appear on the screen or set it to `off' if you prefer 4:3/14:9 mode. Move the OK button DOWN to select `Correction' then move RIGHT to confirm. Move the OK button DOWN to select `On' or `Off'. Press OK button to confirm.

7 Press the MENU button to remove the menu from the TV screen.

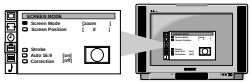
Sorting Programme Positions

After tuning you may wish to change the order in which the channels appear on the TV. You may wish for example to move the channel on programme number 8 to a different programme number.

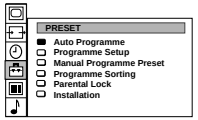




1 Press the MENU button on the remote control to display the menu on the TV screen.

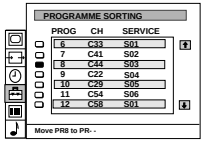


2 Move the OK button on the remote control DOWN to select the symbol on the menu screen then move RIGHT to enter.

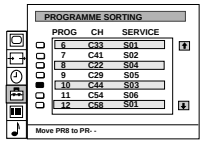


3 Move the OK button DOWN to select `Programme Sorting' then move RIGHT to confirm.

4 Move the OK button UP or DOWN to select the programme position of the channel you want to move eg PROG 8). Press the OK button to confirm.



5 Move the OK button UP or DOWN to select the new programme position for your selected channel. Press the OK button to confirm. Your selected channel has now moved to its new programme number.

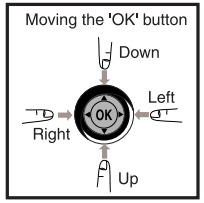


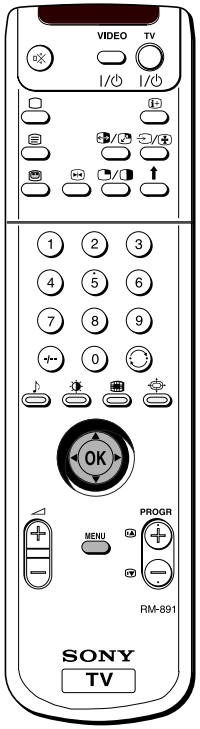
6 Repeat steps 4 and 5 to sort other programme positions.

7 Press the MENU button to remove the menu from the TV screen.

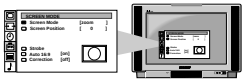
Using Parental Lock

This function enables you to prevent children watching undesirable broadcasts.

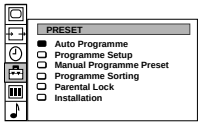




1 Press the MENU button on the remote control to display the menu on the TV screen.

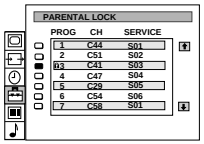


2 Move the OK button on the remote control DOWN to select the symbol on the menu screen then move RIGHT to confirm.



3 Move the OK button DOWN to select `Parental Lock' then move RIGHT to confirm.

4 Move the OK button DOWN to select the channel you want to block. Press the OK button to confirm. The symbol appears before the programme position to indicate that this channel is now blocked. To unblock the channel, press the OK button again. The symbol disappears.

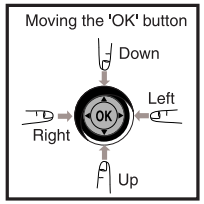


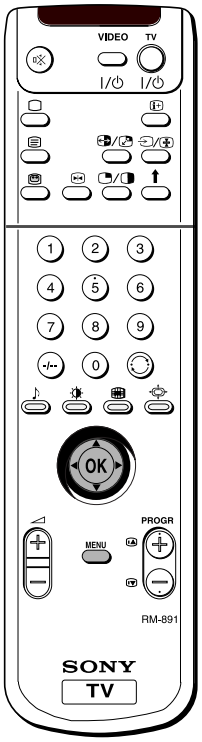
5 Repeat step 4 to block other channels.

6 Press the MENU button to remove the menu from the TV screen.

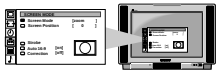
Using Further Programme Preset

With this feature you can
a) individually adjust and store the volume level of each channel (Volume Offset).
b) preset the AV output for the programme positions of channels with scrambled signals (e.g. from a Pay TV decoder). In this way a connected VCR records the unscrambled signal.

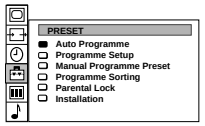




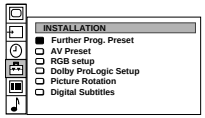
1 Press the MENU button on the remote control to display the menu on the TV screen.



2 Move the OK button on the remote control DOWN to select the symbol on the menu screen then move RIGHT to confirm.

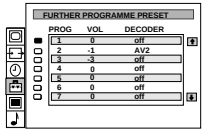


3 Move the OK button DOWN to select `Installation' then move RIGHT to confirm.



4 Move the OK button DOWN to select `Further Prog. Preset' then move RIGHT to confirm.

5 Move the OK button UP or DOWN to select the programme position you want then move repeatedly RIGHT to select:
a) VOL (Volume Offset), b) DECODER. The selected item changes colour.



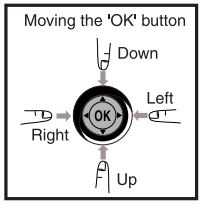
6a) VOL
Move the OK button UP or DOWN to adjust the volume for the selected programme position within a range of -7 to +7. Press the OK button to confirm. Repeat steps 5 and 6 to set the volume level for other programme positions.

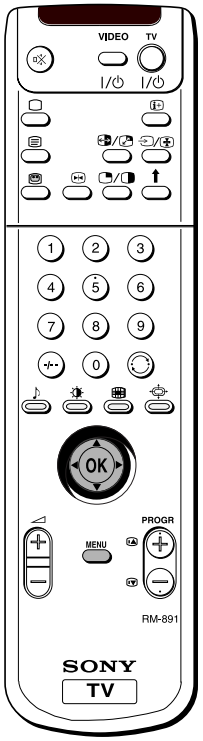
6b) DECODER
Move the OK button repeatedly DOWN to select AV1 or AV2 for the programme position and press the OK button to confirm. Repeat steps 5 and 6 to preset the AV output for other programme positions.

7 Press the MENU button to remove the menu from the TV screen.

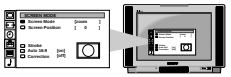
Adjusting the Picture Rotation

If, due to the earth's magnetic field, the picture slants, you can use this function to readjust the picture.

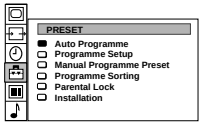




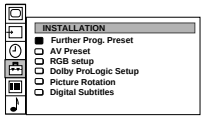
1 Press the MENU button on the remote control to display the menu on the TV screen.



2 Move the OK button on the remote control DOWN to select the symbol on the menu screen then move to RIGHT to enter.

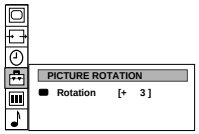


3 Move the OK button DOWN to select `Installation' then move RIGHT to enter.



4 Move the OK button DOWN to select `Picture Rotation' then move RIGHT to enter.

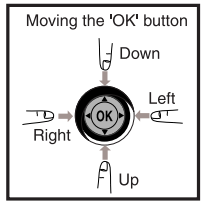
5 Move the OK button RIGHT then move UP or DOWN to adjust the picture rotation. The adjusting range is - 4 to +4. Press the OK button to enter.

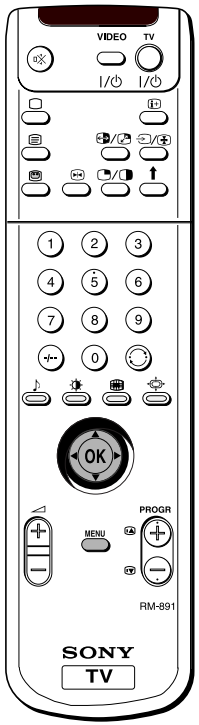


6 Press the MENU button to remove the menu from the TV screen.

Displaying Subtitles

With this feature you can view subtitles on the TV screen when watching digital channels. When watching analogue channels you can view subtitles via the teletext menu screen (see the Teletext section of this instruction manual).





1 Press the MENU button on the remote control to display the menu on the TV screen.

2 Move the OK button on the remote control DOWN to select the symbol on the menu screen then move RIGHT to enter.

3 Move the OK button DOWN to select `Installation' then move RIGHT to enter.

4 Move the OK button DOWN to select `Digital Subtitles' then move RIGHT to enter.

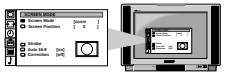
5 Move the OK button RIGHT to select `Digital Subtitles' then move DOWN to switch on / off digital subtitles.

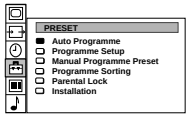
6 Press the OK button to enter.

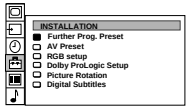
7 If you have switched on the subtitles and wish to change the subtitle language, move the OK button DOWN to select `Subtitle Language' then move RIGHT to highlight the language options.

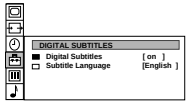
8 Move the OK button repeatedly DOWN to select your chosen language then press the OK button to confirm your choice.

9 Press the MENU button to remove the menu from the TV screen.



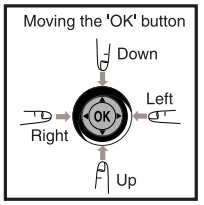


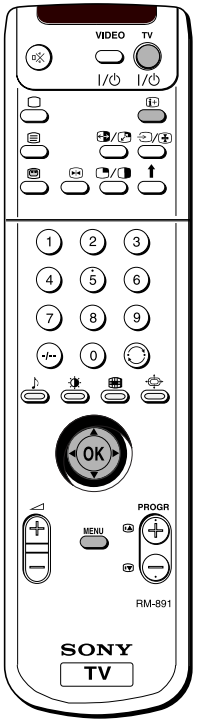




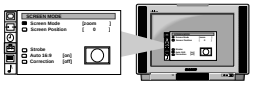
Using the Sleep Timer

The TV can be set to switch automatically to standby mode after a length of time chosen by you. You may set the time in 15 minute steps up to 4 hours.

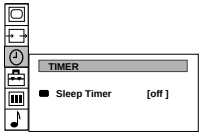




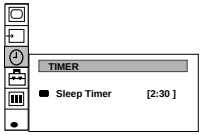
1 Press the MENU button on the remote control to display the menu on the TV screen.



2 Move the OK button on the remote control DOWN to select the symbol on the TV screen, then move RIGHT twice.



3 Move the OK button UP or DOWN repeatedly until the required amount of time delay appears on the screen.



4 Once the time delay has been selected, press the OK button to enter.

5 Press the MENU button to remove the menu from the TV screen.

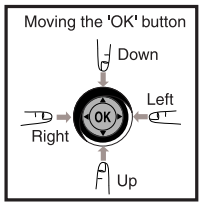
One minute before standby, the display shown appears on the screen.

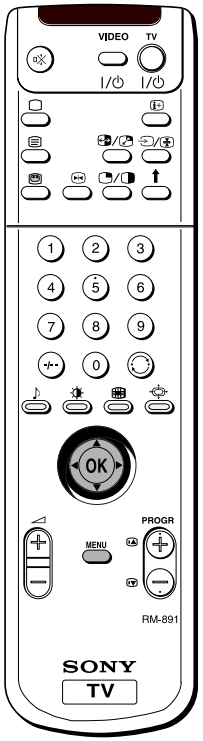
Notes:

- When watching TV, press the button to display time remaining.
- To return to normal operation from standby mode, press the I/⏻ button.

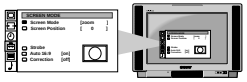
Manually Tuning the TV

You have already tuned the TV to receive all available channels using the `Automatically Tuning the TV' procedure at the start of this manual. You can however carry out this operation manually using the following instructions.

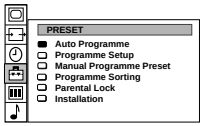




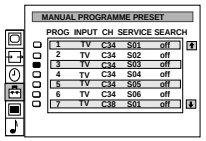
1 Press the MENU button on the remote control to display the menu on the TV screen.



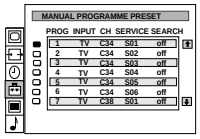
2 Move the OK button on the remote control DOWN to select the symbol on the menu screen then move RIGHT to enter.



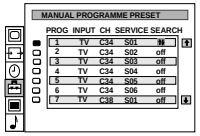
3 Move the OK button DOWN to select `Manual Programme Preset' then move RIGHT to enter.



4 Move the OK button UP or DOWN to select a programme number for your channel (eg PROGR 1 for BBC1) then move RIGHT to enter.



5 Move the OK button repeatedly RIGHT until ↑↓appears in the SEARCH column.



6 Move the OK button UP or DOWN to search for a channel.

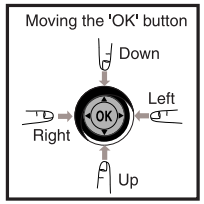
7 If you do not wish to store this channel on the programme number you selected, move the OK button UP or DOWN to continue searching for the desired channel.

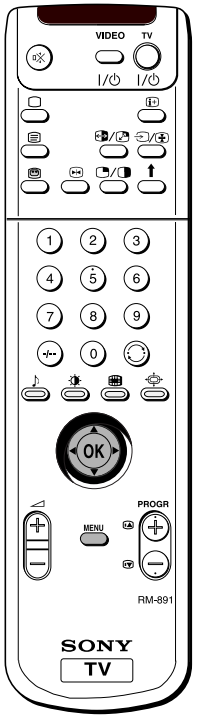
8 If this is the channel you wish to store, press the OK button.

9 Repeat steps 4 to 8 if you wish to store more channels then press the MENU button to remove the menu from the TV screen.

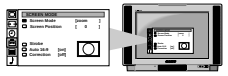
Skipping Programme Positions

This function enables you to skip unused programme positions when selecting them with the PROGR + / - buttons. However, by using the number buttons you can still select the skipped programme position.

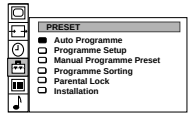




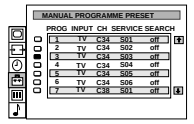
1 Press the MENU button on the remote control to display the menu on the TV screen.



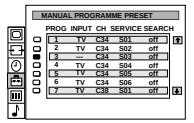
2 Move the OK button on the remote control DOWN to select the symbol on the menu screen then move RIGHT to enter.



3 Move the OK button DOWN to select `Manual Programme Preset' then move RIGHT to enter.



4 Move the OK button UP or DOWN to select the programme position you want to skip then move RIGHT to enter.



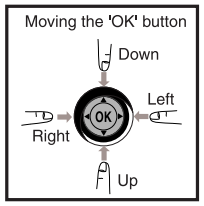
5 Move the OK button DOWN to select `---' in the position INPUT. Press the OK button to enter.

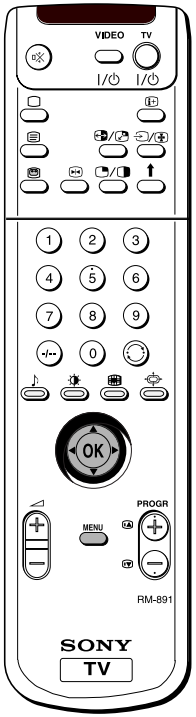
6 Repeat steps 4 and 5 to skip other programme positions.

7 Press the MENU button to remove the menu from the TV screen.

Adjusting the TV Picture for an RGB Source

After connecting an RGB source such as a playstation to the TV, you may need to adjust your TV picture.





1 Press the * button repeatedly on your remote control to display the * symbol on the TV screen.

2 Press the MENU button on your remote control to display the menu on the TV screen.

3 Move the OK button DOWN to select the symbol on the menu screen then move RIGHT to enter the `PRESET' m,enu.

4 Move the OK button DOWN to select `Installation' on the TV screen then move RIGHT to enter the `INSTALLATION' menu.

5 Move the OK button DOWN to select `RGB SetUp' on the TV screen then move RIGHT to enter the `RGB SETUP' menu.

6 Move the OK button RIGHT to select `H Centre' on the screen then move UP or DOWN to adjust the centre of the picture over a range of -20 to +20.

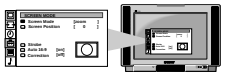
7 Press the OK button to confirm the range.

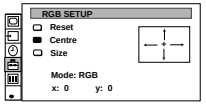
8 Move the OK button DOWN to select `H Size' then move RIGHT to highlight the range.

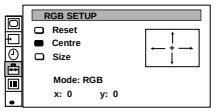
9 Move the OK button UP or DOWN to adjust the horizontal slant of the picture over a range of -20 to +20.

10Press the OK button to confirm the new range.

11PPress the MENU button to remove the menu from the TV screen.

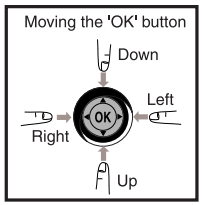


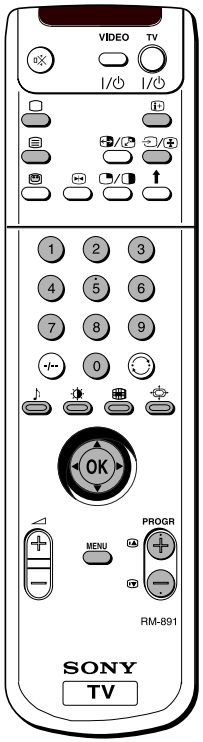




Viewing Standard Teletext

Standard Teletext is an information service transmitted by broadcasters which can be viewed on most of your traditional analogue channels.



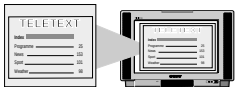


Selecting Teletext

1 When viewing analogue channels, press a number button on the remote control to select the channel which carries the teletext service you wish to receive.

2 Press the button on the remote control to switch on teletext. Press the button again to superimpose teletext on to the TV screen.

3 Input three digits for the page number using the numbered buttons on the control. If you make a mistake, type in any three digits then re-enter the correct page number.



Using Other Teletext Functions

Page Catching

Input a teletext page number. Press the OK button. `Page Catching' is displayed at the top of the page. Move the OK button UP or DOWN to select the page number you require. Press the OK button. The requested page is displayed after some seconds.

To Move to Next or Preceding Page

Press or on the control to select the previous or next page.

To Freeze a Teletext Page

Press on the control to freeze the page. Press again to cancel the freeze.

Revealing concealed information (eg: answers to a quiz).

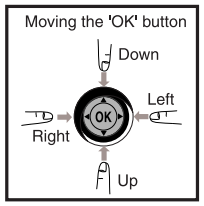
Press to reveal information. Press again to conceal the information.

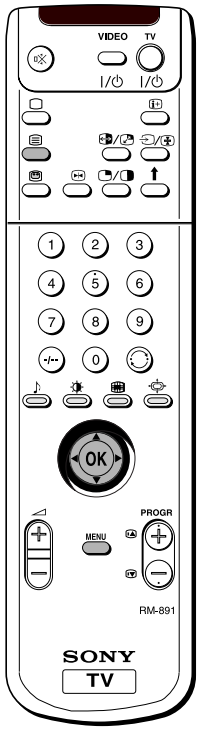
Using colour buttons to access pages

When the colour coded menu appears at the bottom of a page, press the colour button (green, red, yellow or blue) on the control to access the corresponding page.

Viewing Standard Teletext

Select further standard teletext functions as follows:

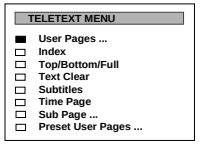




Using the Teletext Menu

1 With teletext on the TV screen, press the MENU button on the remote control to display the teletext menu.

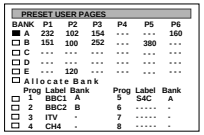
2 Move the OK button on the remote control DOWN to select the teletext function you want then move RIGHT to confirm your choice.



Preset User Pages...

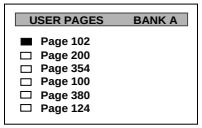
For quick access to the pages you frequently use, you can store your favourite teletext pages.

1 Push to ▼ to select the bank (from A to E) in which you want to store the pages then push to ▶ to confirm.
2 Push to ▼ to select the three digits of your 6 favourite pages in columns P1 -P6. Push to ▶ after selecting each digit. Press the OK button to confirm your selections.
3 Push to ▼ to select `Allocate Bank' then push to ▶ to confirm.
4 Push to ▼ to select the programme position which is carrying the teletext service containing your favourite pages, then push to ▶ to confirm.
5 Push to ▼ to select the bank chosen in step 1 then press the OK button to confirm.
6 Repeat steps 1 to 5 if you wish to store pages in the other four available banks.


PRESET USER PAGES
BANK P1 P2 P3 P4 P5 P6
A 232 102 154 --- --- 160
B 151 100 252 --- 380 ---
C --- --- --- --- --- ---
D --- --- --- --- --- ---
E --- 120 --- --- --- ---
Allocate Bank
Prog Label Bank
1 BBC1 A
2 BBC2 B
3 ITV -
4 CH4 -
Prog Label Bank
5 S4C A
6 ----- -
7 ----- -
8 ----- -

User Pages...

7 Push to ▶ twice to display the Teletext menu screen.
8 Push to ▼ to select User Pages then push to ▶ to confirm.
9 Push to ▼ to select a favourite page then press the OK button to display the page.



Index

The index gives you an overview of the teletext contents.

Top/Bottom/Full

For easier reading, you can enlarge the teletext page. Push the OK button to ▲ to enlarge the upper half, push to ▼ to enlarge the lower half. Press the OK button to resume the normal display.

Text Clear

After selecting this function, you can watch a TV programme while waiting for a requested teletext page to be captured. When the page is available, it will be displayed.

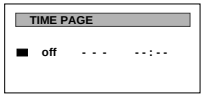
Subtitles

Check with your teletext service for information about subtitled TV programmes. After selecting the function the subtitles are displayed. Press the function again to remove the subtitles.

Time Page

Check with your teletext service about the availability of time coded pages. If available, you can call up a page at a certain time.

1 With the Time Page menu on the TV screen, push to then push to ▼ to select `on'. Push to ▶ to confirm.
2 Push to ▼ to enter the three digits of the page you want (eg 301) and the four digits of the desired time (eg 18:54). Push to ▶ after each digit. Press the OK button to confirm. At the requested time, the page you selected is displayed.

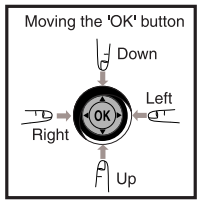


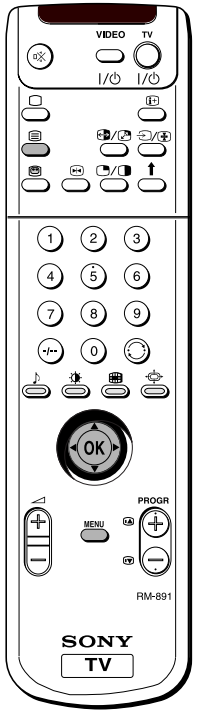
Subpage

Using this function you can select the subpages, if available, of a particular teletext page. After selecting the function push to ▶ to access the various subpages. Select the function again to cancel the request.

Viewing Digital Teletext

Most of the digital TV channels broadcast information via teletext.





Selecting Teletext

1 To view the digital teletext service, firstly select the dedicated teletext channel.

2 Individual Teletext pages are then selected by using the UP, DOWN, LEFT or RIGHT buttons to guide the on-screen cursor to the required area of the screen. Pressing the OK button then displays the chosen information.

3 Alternatively, use the numeric buttons 0-9 to directly enter the number of the page you require.

4 When you have finished viewing Teletext, select an alternative channel in the normal manner.

Normal Teletext services may also be available on other digital channels and are selected using the ☰ button.

1 Press a number button on the remote control to select the channel which carries the teletext service you wish to receive.

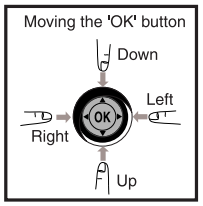
2 Press the ☰ button on the remote control to switch on teletext. Press the ☰ button again to superimpose teletext on to the TV screen.

3 Input three digits for the page number using the numbered buttons on the control. If you make a mistake, type in any three digits then reenter the correct page number.

4 Press the ▭ button to switch off teletext.

Event Schedule Guide (ESG)

The Event Schedule Guide (ESG) is an electronic guide which provides programme information for all channels supporting ESG.

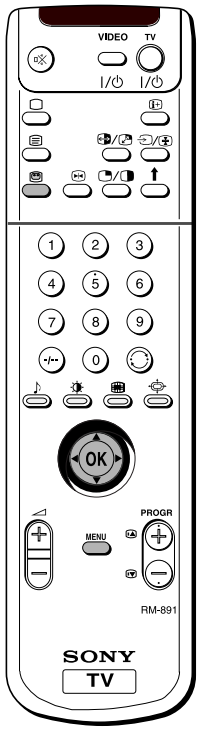


Displaying the ESG

1 Press the button on the remote control to display the programme guide on the TV screen.

2 Move the OK button on the remote control UP, DOWN, LEFT or RIGHT to move the on-screen cursor around the guide.

3 Press the button again to remove the programme guide from the TV screen.



Viewing Information on the ESG

You can alter the type of information presented on the ESG by changing data in the date, time and genre columns. You can for example display programme information for all sports programmes being shown tomorrow from 5.00pm onwards.

1 Press the button on the remote control to display the ESG on the TV screen.

2 Move the OK button on the remote control RIGHT or LEFT to highlight the `date' column then move the OK button UP or DOWN to select your chosen date.

3 Move the OK button RIGHT or LEFT to highlight the `time' column then move the OK button UP or DOWN to select your chosen time.

4 Move the OK button RIGHT. The ESG will display programme information according to the date and time you selected.

5 Move the OK button RIGHT to highlight the `Genre' column then move UP or DOWN to select the type of programme you want to display. You have the choice between Movies, News, Entertainment, Sport, Children Programmes, Drama or Education.

6 Move the OK button RIGHT or LEFT to update the programme information accordingly. If you selected tomorrow's date, 17:00 and Sport, you should now be able to view all the sports programmes being shown tomorrow from 5.00 pm onwards.

7 Press the button on the remote control to remove the ESG from the TV screen.

Recording Programmes

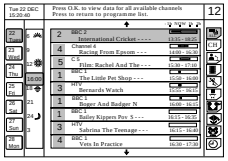
1 Press the button on the remote control to display the ESG on the TV screen.

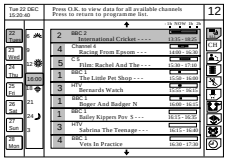
2 Move the OK button RIGHT or LEFT to highlight the `Programme' column then move the OK button UP or DOWN to select your desired programme.

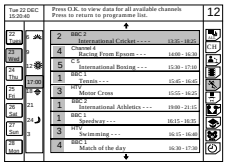
3 Press the OK button. If the programme is currently being broadcast, this programme will be displayed on your TV. If not, the `TIMER' menu will be displayed on the TV screen.

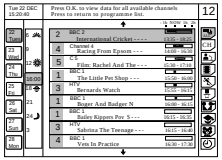
4 At the bottom of the timer page you can see the symbols Return (back to ESG), Event Rec (to record a programme) or Wake Up (to set the programme to switch on automatically).

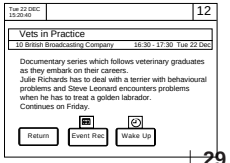
5 Move the OK button LEFT or RIGHT to select one of these symbols then press the OK button to confirm your selection. The ESG display appears on screen with the relevant icon appearing next to the programme you selected in point 2.



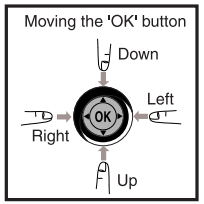


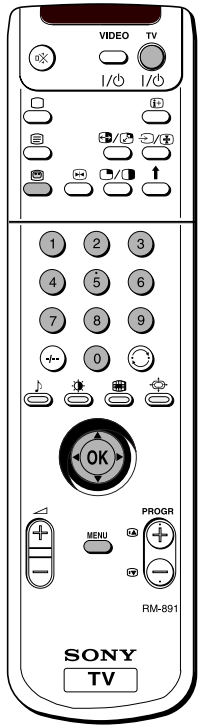





Vets in Practice
10 British Broadcasting Company 16:30 - 17:30 Tue 22 Dec
Documentary series which follows veterinary graduates as they embark on their careers.
Julie Richards has to deal with a terrier with behavioural problems and Steve Leonard encounters problems when he has to treat a golden labrador.
Continues on Friday.
Return
Event Rec
Wake Up

Event Schedule Guide (ESG)





Setting The Manual Timer

1 Press the button on the remote control to display the ESG on the TV screen.

2 Move the OK button RIGHT or LEFT to highlight the `programme type' column then move the OK button DOWN to select the timer symbol.

3 Press the OK button to display a screen of 8 programme slots, each one indicating that it is either free for programming, or that it has a programme already stored in it.

4 Move the OK button UP or DOWN to select a free row then press the OK button to display the Set Timer screen. This screen asks you to confirm the date, programme number, start time and end time.

5 Move the OK button UP to select the date then press the number keys on the control to enter the date.

6 Move the OK button RIGHT to confirm the date then move the OK button UP or DOWN to select the month.

7 Move the OK button RIGHT to confirm the month and to enter the start time.

8 Press the number keys to enter the time when you want the set top box to switch on, preferably several minutes before you set your video recorder to start recording. If you wish to switch on at 8.25 pm, enter 2025.

9 Move the OK button RIGHT to confirm the entry and to enter the switch-off time.

10 Press the number keys to enter the time you want your set top box to switch off, preferably after your video has stopped recording. Again, you should enter 4 digits and in the 24 hour format.

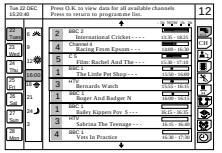
11 Move the OK button RIGHT to confirm the entry and to enter the programme number.

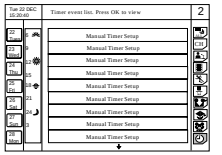
12 Press the OK button to save the settings then press the RETURN button to return to the Manual Timer Setup menu.

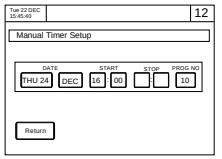
13 Select another available slot if you wish to record a further programme.

14 Move the OK button RIGHT to enter the `programme type' column then press the OK button to return to the ESG.

15 If you have finished watching programmes on your set top box, you should press the I/⏻ button to leave your box in standby mode for the timer settings to be activated. If, however, you wish to continue watching other digital channels after setting a timer, you can do so by changing channels in the normal way. If you are watching another digital channel when the timer is due to start the timer alarm will sound and present you with the option of switching channels or continuing to watch the current channel.







Using Optional Equipment

Using the following instructions, you can connect a wide range of optional equipment to your TV.

Connecting Equipment to the TV

1 Connect your equipment to the designated TV socket.

2 Press the MENU button on the remote control to display the menu on the TV screen.

3 Move the OK button on your remote control DOWN to select the symbol on the menu screen then move RIGHT to enter the `PRESET' menu.

4 Move the OK button DOWN to select `Installation' then move RIGHT to enter the `INSTALLATION' menu.

5 Move the OK button DOWN to select `AV Preset' then move RIGHT to enter the `AV PRESET' menu.

6 Move the OK button DOWN to select the socket that is being used to connect the optional equipment:

Socket	Symbol	Input signals
AV1	1	• Audio / video input signal through the Euro AV connector **E**
AV2	2	• Audio / video input signal through the Euro AV connector **F**
AV3	3	• Audio / video input signal through the sockets **B**, **C** or **D**
AV4	4	• Audio / video input signal through the Euro AV connector **G**

7 Move the OK button RIGHT to select the `SOURCE' column.

8 Move the OK button DOWN to select `AV' for this column then press the OK button to confirm.

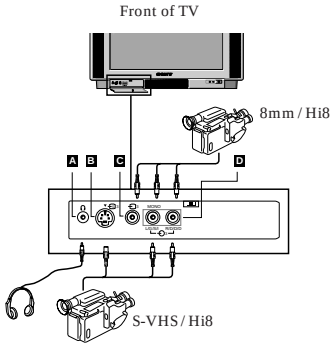
9 Press the MENU button to remove the menu display from the TV screen.

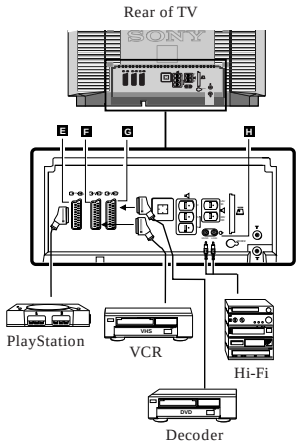
10 Press the button repeatedly on your remote control until the correct input symbol for your equipment appears on the TV screen (refer to the table above).

11 Switch on the connected equipment.

12 To return to normal TV picture, press the button on the remote control.

Note: To avoid picture distortion, do not connect equipment to the **B** and **C** sockets when the scart connector **E**, **F** or **G** is in use.





Using Optional Equipment

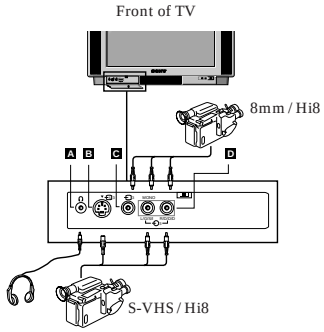
Additional Information When Connecting Equipment

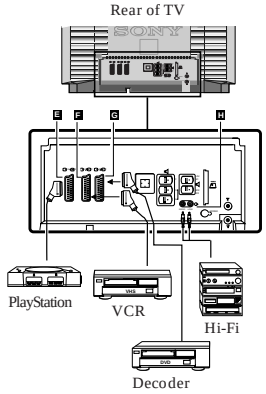
Connecting A VCR
We recommend you connect your VCR to the F socket using a scart lead. If you do not have a scart lead, use the `Manually Tuning the TV' section of this instruction manual to tune in the VCR signal to TV programme number `0'.

Connecting Headphones
Plug in your headphones to the A socket on the front of the TV set.

Connecting to External Audio Equipment
Plug in your Hi-Fi equipment to the H sockets on the rear of the TV if you wish to amplify the audio output from the TV.

For Mono Equipment
Connect the phono plug to the L / G / S / I socket on the front of the TV and select the 2 input signal using the insructions on the previous page. Finally, refer to the `Adjusting the Sound' section of this manual and select `A' on the sound menu screen.





Selecting The Output Source For The Scart Socket F

1 Press the MENU button on the remote control to display the menu on the TV screen.

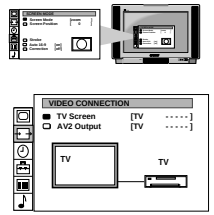
2 Move the OK button DOWN to select the symbol on the menu screen then move RIGHT to display the `VIDEO CONNECTION' menu screen.

3 Move the OK button DOWN to highlight `TV Screen' (input source for the TV screen) or `AV2 Output' (output source for 2 / 2) then move RIGHT to confirm.

4 Move the OK button DOWN to select the desired source (see below) then press the OK button to confirm:

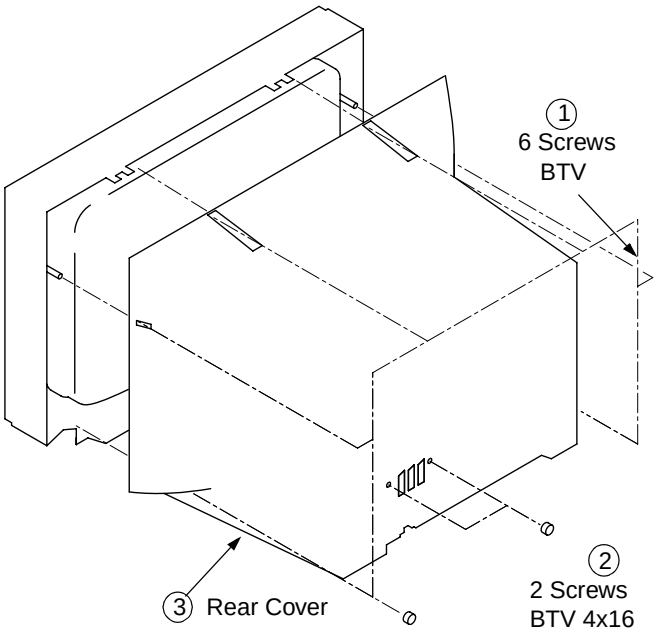
TV Screen: TV, AV1, RGB, AV2, YC2, AV3, YC3, AV4, YC4
Output: TV, AV1, AV2, YC2, AV3, YC3, AV4, YC4

5 Press the MENU button to remove the menu from the TV screen.

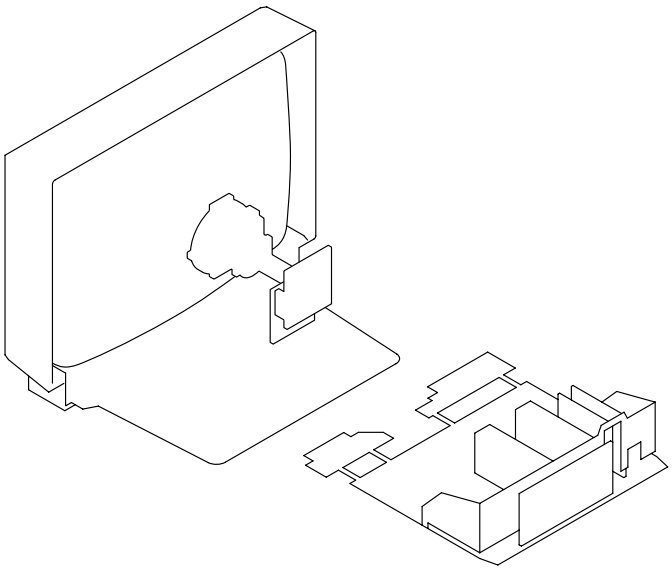


SECTION 2
DISASSEMBLY

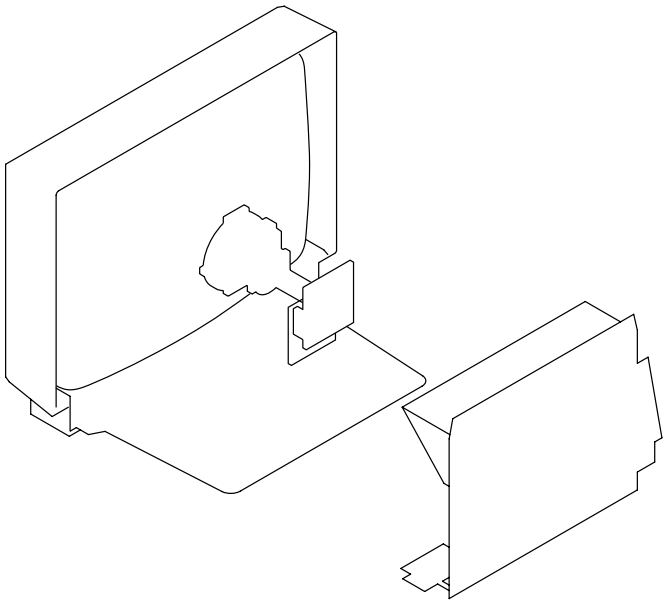
2-1. REAR COVER REMOVAL



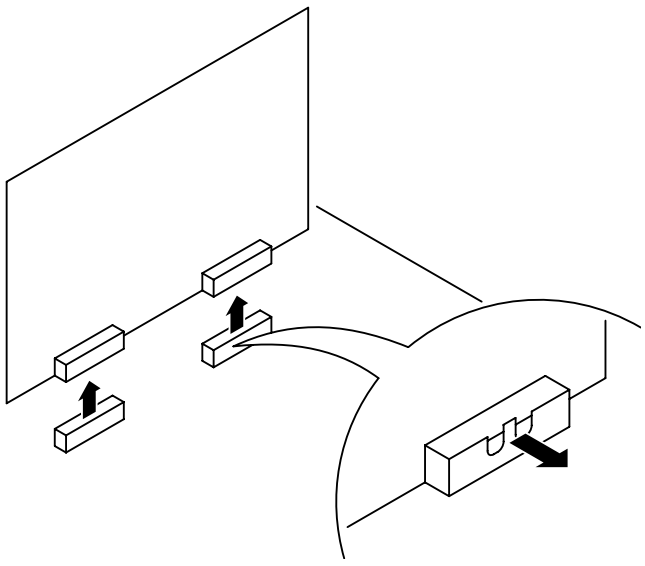
2-2. CHASSIS ASSY REMOVAL



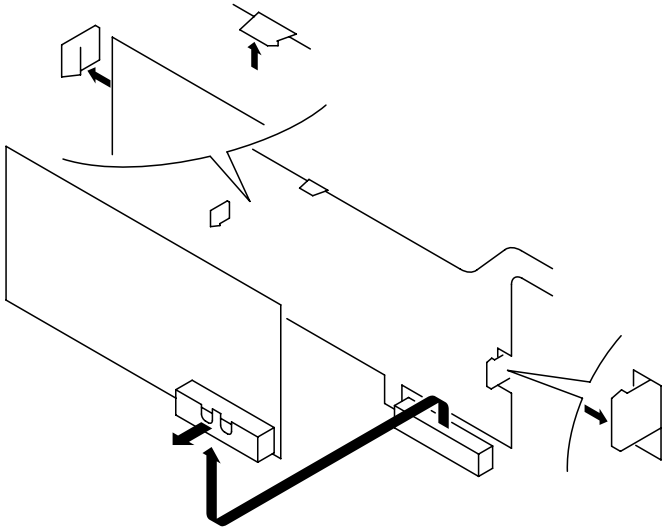
2-3. SERVICE POSITION



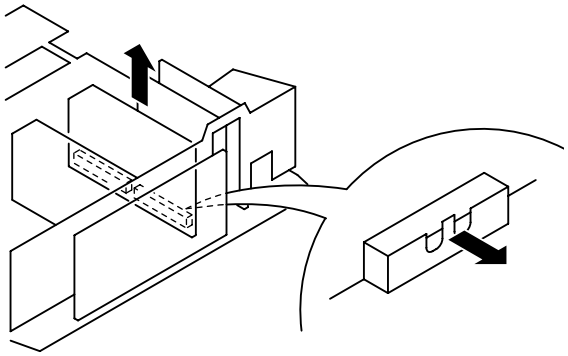
2-4. A1 BOARD REMOVAL



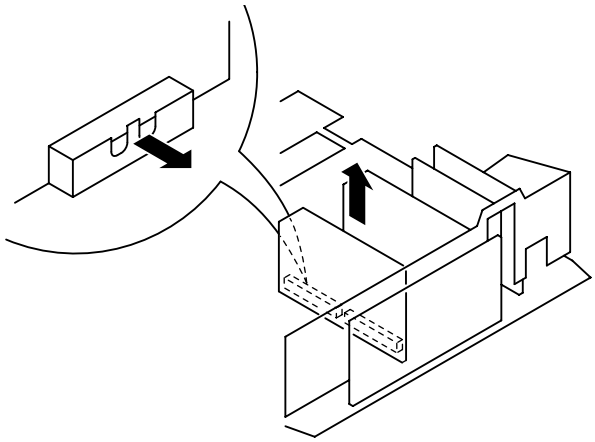
2-5. J BOARD REMOVAL



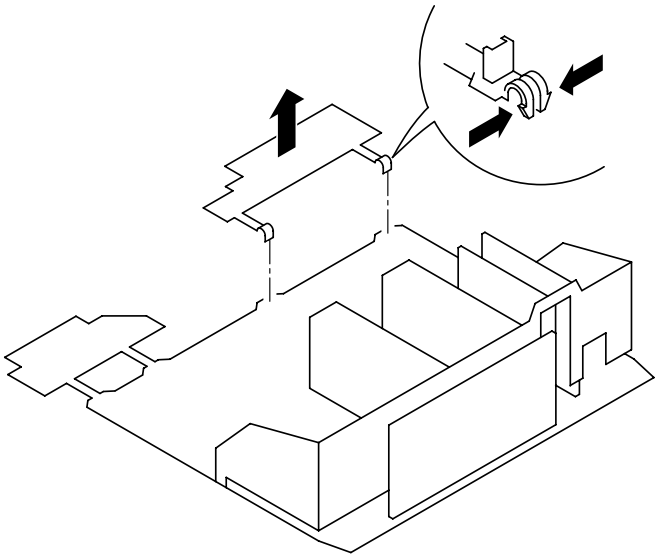
2-6. B BOARD REMOVAL



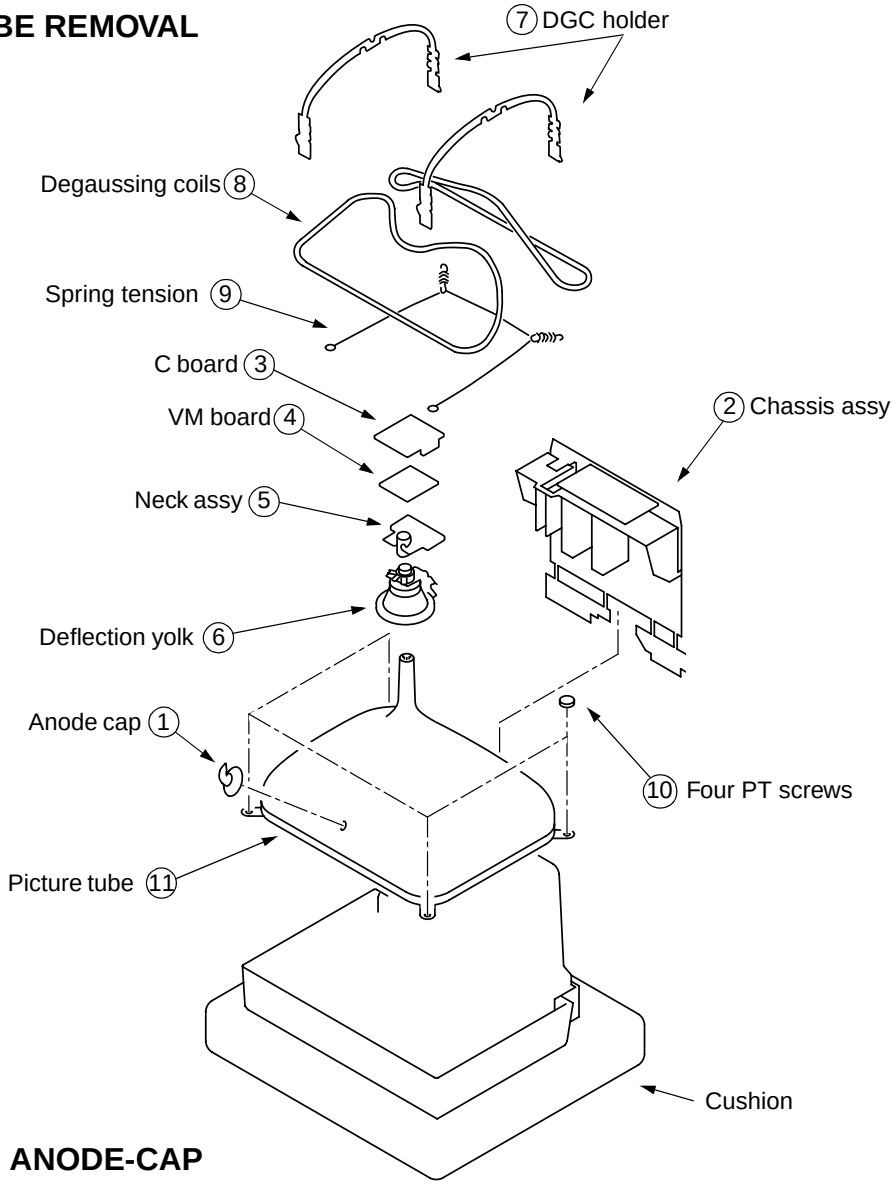
2-7. D1 BOARD REMOVAL



2-8. H BRACKET REMOVAL



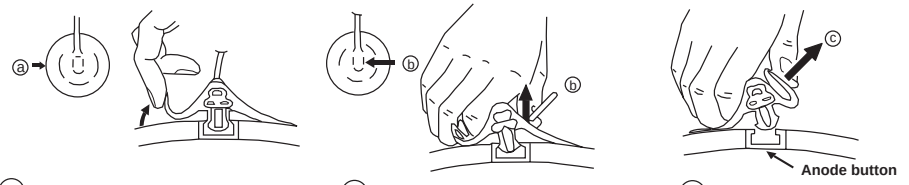
2-9. PICTURE TUBE REMOVAL



- **REMOVAL OF ANODE-CAP**

Note : Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT, after removing the anode.

*** REMOVING PROCEDURES.**



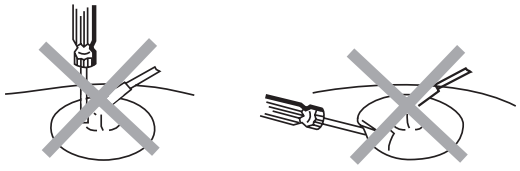
① Turn up one side of the rubber cap in the direction indicated by the arrow ⓐ

② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ⓑ

③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling it up in the direction of the arrow ⓒ

- **HOW TO HANDLE THE ANODE-CAP**

① To prevent damaging the surface of the anode-cap do not use sharp materials.
② Do not apply too great a pressure on the rubber, as this may cause damage to the anode connector.
③ A metal fitting called a shatter hook terminal is fitted inside the rubber cap. Do not turn the rubber foot over excessively this may cause damage if the shatter hook sticks out.



SECTION 3
SET-UP ADJUSTMENTS

- When complete readjustment is necessary or a new picture tube is installed, carry out the following adjustments.
- Unless there are specific instructions to the contrary, carry out these adjustments with the rated power supply.
- Unless there are specific instructions to the contrary, set the controls and switches to the following settings:

Contrast ..... normal

Brightness ..... normal

Carry out the following adjustments in this order:

3-1. Beam Landing
3-2. Convergence
3-3. Focus
3-4. White balance

Note: Test equipment required
1. Color bar/pattern generator.
2. Degausser.
3. Digital multimeter.
4. Oscilloscope.

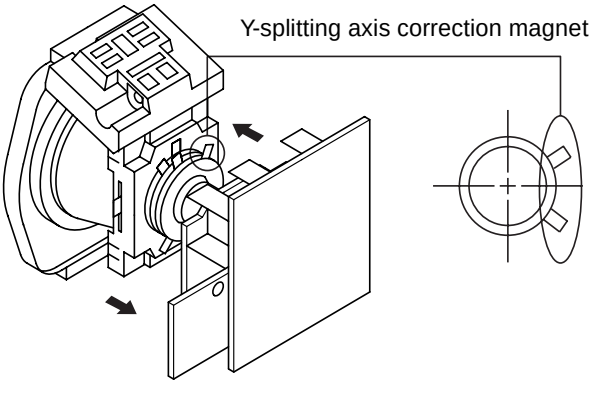
3-1. BEAM LANDING

Preparation:

1. In order to reduce the influence of geomagnetism on the set's picture tube, face it in an easterly or westerly direction.
2. Switch on the set's power and degauss with the degausser.

(1) Adjustment of Correction Magnet for Y-Splitting Axis

1. Input a crosshatch signal from the pattern generator.
2. Set the Picture control to minimum and confirm that the Brightness control is set to normal.
3. Position the neck assembly as indicated in Fig.3-2.
4. Move the deflection yolk as far forward as is possible.
5. Adjust the upper and lower pin symmetrically by opening or closing the Y-splitting axis correction magnets located on the neck assembly.
6. Return the deflection yolk to its original position.



Caution :

High voltages are present on the Deflection yolk terminals - take care when handling the Deflection yolk whilst carrying out adjustments.

(2) Landing

Note : Before carrying out the following adjustments adjust the magnets as indicated below [See Fig.3-3].

1. Input an all-white signal from the pattern generator. Maximize the picture setting and adjust the Brightness setting.
2. Rough-adjust the focus and horizontal convergence.
3. Loosen the deflection yolk screws and align the purity adjustment knob to its central position. [See Fig.3-1].
4. Switch from the all-white pattern to an all-green pattern.
5. Move the deflection yolk backwards and adjust with the purity magnet so that the green is at the centre and it aligns symmetrically. [See Fig.3-4].
6. Move the deflection yolk forward and adjust so that the entire screen becomes green.
7. Switch the raster signal to red, then to blue and verify the landing condition.
8. When the position of the deflection yolk has been determined, fasten the deflection yolk with the screw.
9. If the beam does not land correctly in all the corners of the screen, use magnets to correct it. [See Fig.3-5].

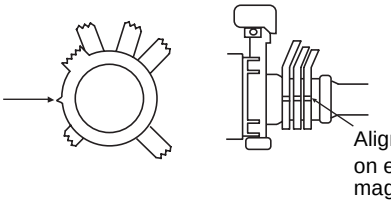


Fig.3-3

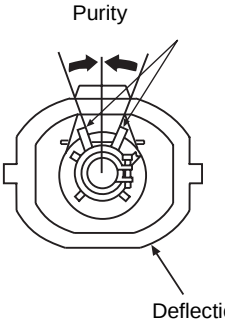


Fig.3-1

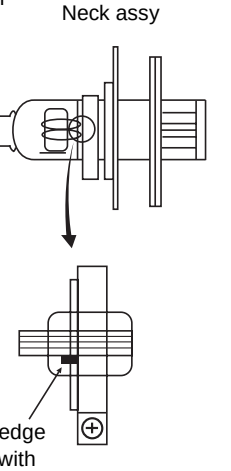


Fig.3-2

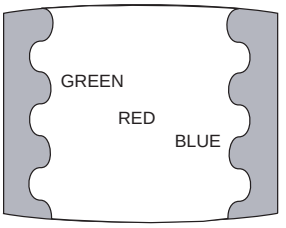


Fig.3-4

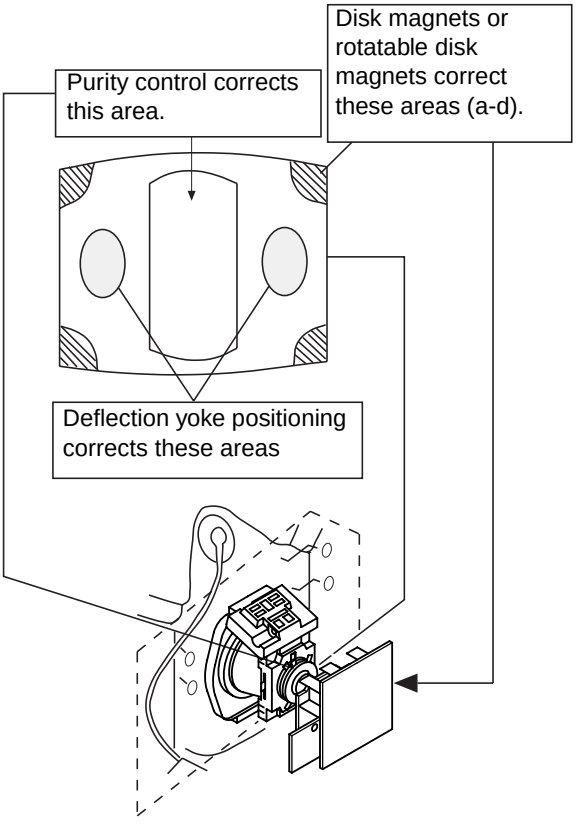
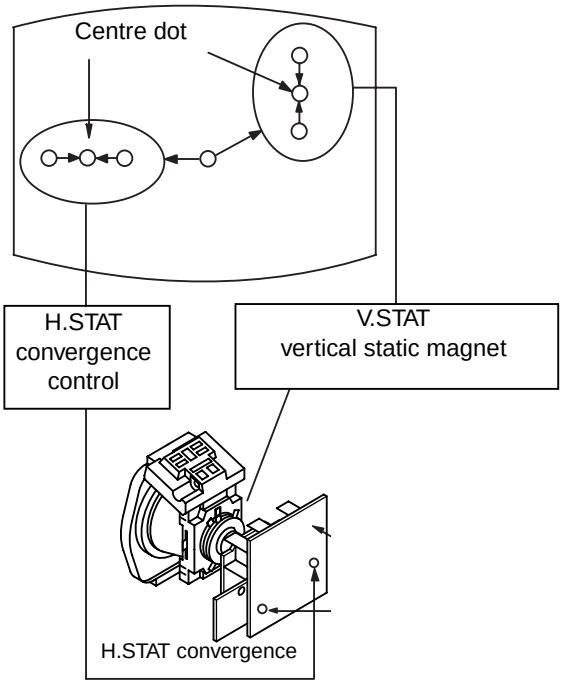

Disk magnets or rotatable disk magnets correct these areas (a-d).
Purity control corrects this area.
Deflection yoke positioning corrects these areas

Fig. 3-5

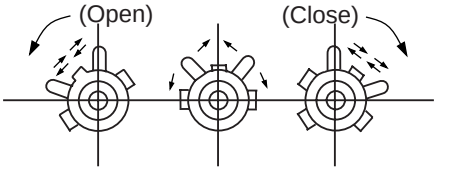
3-2. CONVERGENCE

(1) Screen centre convergence [Static convergence]

1. Input a dot signal from the pattern generator. Normalize the picture setting.
2. [Moving horizontally], adjust the H.STAT control so that the horizontal red, green and blue dots coincide at the centre of the screen.
3. [Moving vertically], adjust the V.STAT magnet so that the vertical red, green and blue dots coincide at the centre of the screen.

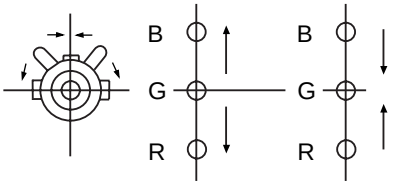


- If the horizontal dots are unable to coincide with the variable range of the H.STAT convergence, adjust together with the V.STAT convergence while tracking.
  [Adjust the convergence by tilting the V.STAT convergence or by opening and closing the V.STAT convergence.]

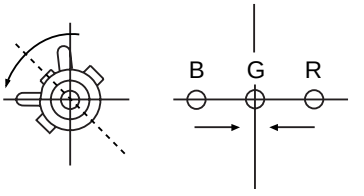


4. Movement of the red, green and blue dots by tilting the V.STAT magnet and by opening or closing the V.STAT magnet.

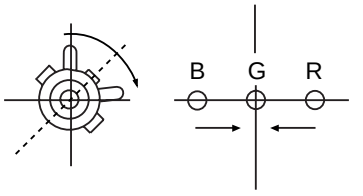
a). By opening or closing the V.STAT magnet, the red, green and blue dots move as indicated below.



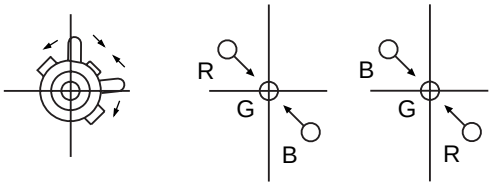
b). By rotating the V.STAT magnet counter clockwise, the red, green and blue dots move as indicated below.



c). By rotating the V.STAT magnet clockwise, the red, green and blue dots move in the direction indicated below.



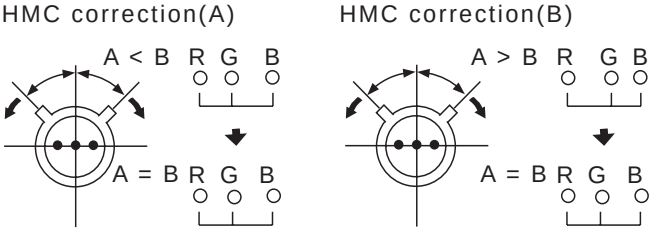
d). By opening or closing the V.STAT magnet, the red, green and blue dots move in the direction indicated below.



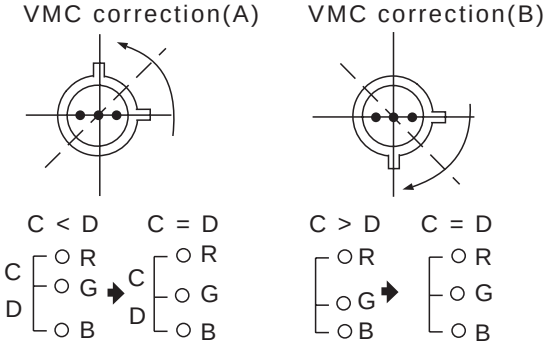
Note : If the blue dot does not coincide with the red and green points correct the points by using the BMC [Hexapole] magnet.

5. Correction for HMC [horizontal mis-convergence] and VMC [vertical mis-convergence] by using the BMC [Hexapole] magnet.

a). HMC correction by BMC [Hexapole] magnet and movement of the electron beam.

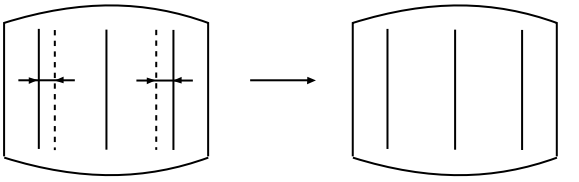


b). VMC correction by BMC [Hexapole] magnet and movement of the electron beam.



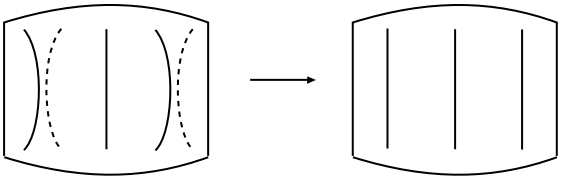
(2) Dynamic convergence

HTIL

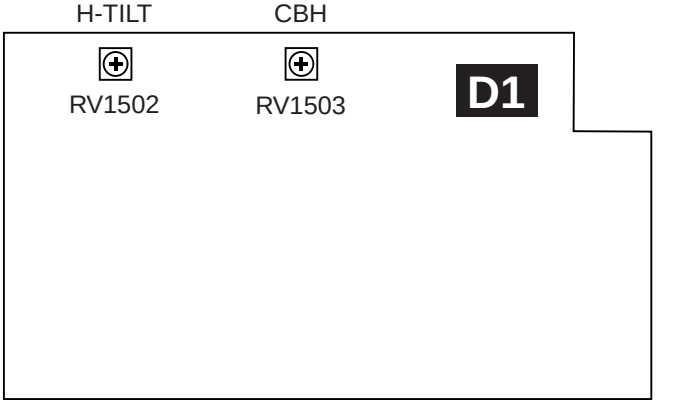


1. HTIL correction can be performed by adjusting RV1502 on the D1 board.

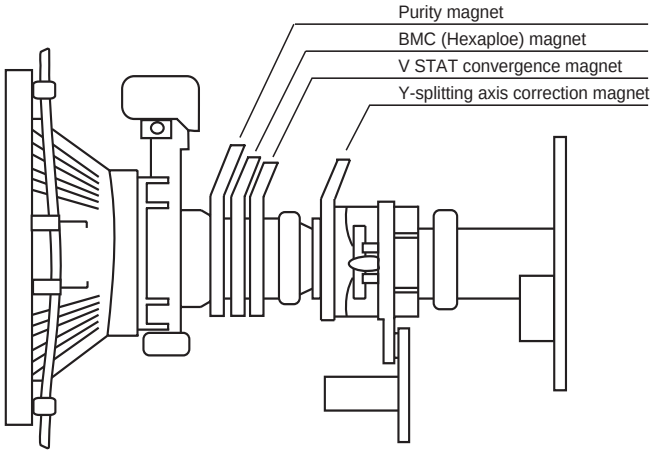
COR.BOW



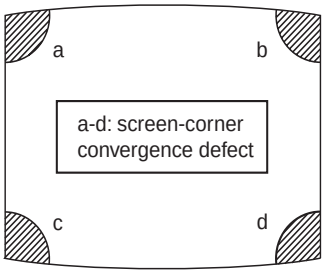
2. COR.BOW correction can be performed by adjusting RV1503 on the D1 board.

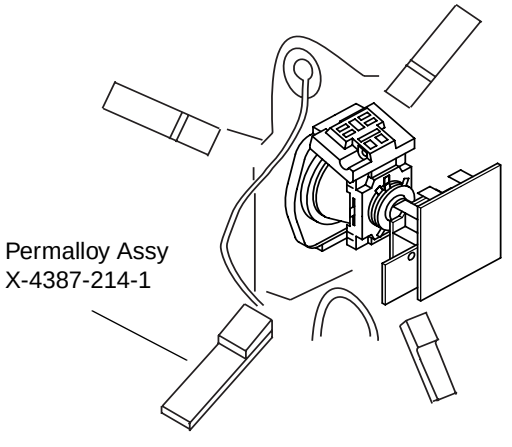


Layout of each control



Note : If you are unable to adjust the corner convergence properly, this can be corrected with the use of permalloys.

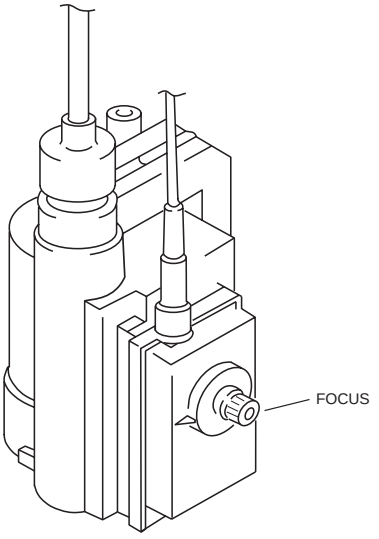




Convergence adjustment with permalloy

3-3. FOCUS

1. Receive a television broadcast signal.
2. Normalize the picture setting.
3. Adjust the focus control located on the flyback transformer to obtain the best focus at the centre of the screen.
   Bring only the centre area of the screen into focus, the magenta-ring appears on the screen. In this case, adjust the focus to optimize the screen uniformly.



3-4. SCREEN (G2), WHITE BALANCE

[Adjustment in the service mode using the remote commander]

G2 adjustment (RV701)

1. Input a dot signal from the pattern generator.
2. Set the Picture, Brightness and Colour to minimum.
3. Apply 170V DC from an external power supply to the R, G and B cathodes of the CRT.
4. Whilst watching the picture, adjust RV701 [SCREEN] located on the C Board to the point just before the flyback return lines disappear.

White balance adjustment

1. Input an all-white signal.
2. Enter into the Service Mode by pressing ‘TEST’, ‘TEST’ and ‘MENU’ ‘MENU’on the Service Commander.
3. Move the OK button down until ‘MCP CXA2101’is selected then move the OK button to the right.The ‘MCP CXA2101’ menu will appear on the screen.
4. Select ‘19 R DRIVE’ by moving the OK button down until ‘19 R DRIVE’ is selected then move the OK button to the right and adjust to 41 by pushing the OK button up or down.
5. Press the OK button to write the data.
6. Adjust the ‘21 G DRIVE’ and ‘23 B DRIVE’ so that the white balance becomes optimum.
7. Press the OK button to write the data.
8. Input a 5 - 10 NIT all-white signal.
9. Select ‘25 R CUT-OFF’ by moving the OK button down until ‘25 R CUT-OFF’ is selected then move the OK button to the right and adjust to 41 by pushing the OK button up or down.
10. Adjust the ‘27 G CUT-OFF’, and ‘29 B CUT-OFF’ so that the white balancebecomes optimum.
11. Press the OK button to write the data.

Item No	Adjustment menu	Data Amount
1	RED	ON
2	GREEN	ON
3	BLUE	ON
4	CBLK	OFF
5	AKB T	OFF
6	BLK SW	OFF
7	DA TEST	OFF
8	HY SW	0
9	PICTURE	57
10	LIMIT LEVEL	1
11	HUE	31
12	SYSTEM	1
13	COLOR	31
14	AGE WHT	OFF
15	AGE BLK	OFF
16	BRIGHT	31
17	YS/YM SW	0
18	YM/VM	0
19	SHARPNESS	35
20	D COL	0
21	G DRIVE	ADJ
22	CLP SW	1
23	B DRIVE	ADJ
24	CLP MSK	0
25	R CUT OFF	32
26	ABL MODE	2
27	G CUT OFF	ADJ
28	ABL TH	1
29	B CUT OFF	ADJ
30	SUB BRT	ADJ
31	H SEP SEL	1
32	FIX SEL	0
33	V - TC	2
34	H WIDTH	0
35	HD TC	1
36	HS MASK	1
37	CB OFF SET 1	7
38	CR OFF SET 1	7
39	CB OFF SET 2	7
40	CR OFF SET 2	7

SECTION 4
CIRCUIT ADJUSTMENTS

4-1. ELECTRICAL ADJUSTMENTS

Service adjustments to this model can be performed using the supplied Remote Commander RM-891.

HOW TO ENTER INTO SERVICE MODE

1. Turn on the main power switch of the set while pressing the PROG + and PROG - buttons on the top panel.

2. 'TT--' will appear in the upper right corner of the screen.
   Other status information will also be displayed.
3. Press 'MENU' 'MENU' on the remote commander to obtain the following menu on the screen.

DEVICES	
Init TV	
Sound	MSP3410D
Feature Box	S87654
Deflect Cont.	SDA9361
Deflect Cont.Subadjust	
MCP	CXA2101
Col.Dec.Main	TDA9144
DA	SDA9280
Line 23 Detection	
Sub Adjust	
Port Expander	

4. Move to the corresponding adjustment item by pushing the OK button up or down.
5. Push the OK button to the right to enter into the required adjustment.
6. Press the 'Menu' button and '00' on the Remote Commander to quit the Service Mode when all adjustments have been completed.

Defl.Cont. SDA9361		
1	V SIZE	ADJ
2	V POSITION	ADJ
3	V LINEARITY	ADJ
4	S CORRECTION	ADJ
5	H SIZE	ADJ
6	PIN AMP	ADJ
7	UPPER CORNER PIN	ADJ
8	LOWER CORNER PIN	ADJ
9	V BOW	ADJ
10	PIN PHASE	ADJ
11	V ANGLE	ADJ

CENTRE ADJUSTMENT FOR 4:3 MODE

1. Input a Sony special pattern.
2. Switch the TV into Analogue 4:3 mode.
3. Enter into the service menu by pressing 'TEST' 'TEST' and 'MENU' 'MENU' on the remote commander.
4. Select 'DA SDA9280' from the 'Devices' menu.
5. The 'DA SDA9280' menu will appear on screen.
6. Adjust '29 BCKPOS' so that the picture is in the centre of the screen.

CENTRE ADJUSTMENT FOR DIGITAL MODE

1. Input a Digital test pattern.
2. Switch the TV into Digital mode.
3. Enter into the service menu by pressing 'TEST' 'TEST' and 'MENU' 'MENU' on the remote commander.
4. Select 'Deflect.Cont SDA9316' from the 'Devices' menu.
5. The 'Deflect.Cont SDA9316' menu will appear on screen.
6. Adjust '48 INT H PHASE' so that the picture is in the centre of the screen.
7. Adjust '1 V size' and '2 V position'so that the picture is in the centre of the screen.

DA SDA9280		
1	Int 444	ON
2	Int 422	ON
3	Incodc	ON
4	Incodl	OFF
5	Infor	1
6	Insneg	ON
7	Trawid	7
8	Thresh	11
9	VinV	Dependant on analogue or digital
10	UinV	Dependant on analogue or digital
11	Cgrres	0
12	Cgr	OFF
13	Ydel1	Dependant on analogue or digital
14	YinV	OFF
15	Ygrres	0
16	Ygr	OFF
17	Bcof	Dependant on analogue or digital
18	Lcof	Dependant on analogue or digital
19	Hcof	Dependant on analogue or digital
20	Phacom	2
21	Cor	ON
22	Comex	OFF
23	Comp	OFF
24	Readd	0
25	Ovsamp	ON
26	Ovfilt	ON
27	Backgr	OFF
28	Hsdel	2
29	Bckpos	191

DEFLECTION ADJUSTMENT FOR WIDE MODE

1. Input an Phillips pattern.
2. Switch the TV into wide mode.
3. Enter into the service menu by pressing ‘TEST’ ‘TEST’ and ‘MENU’ ‘MENU’ on the remote commander.
4. Select ‘Deflect.Cont SDA9361’ from the ‘Devices’ menu.
5. The ‘Deflect.Cont SDA9361’ menu will appear on screen.
6. Select and adjust each item to obtain optimum image.
7. Return to the ‘Devices’ menu.
8. Select the ‘Sub Adjust’ menu.
9. Select and adjust each item to obtain optimum image.
10. Repeat above steps in Digital mode.

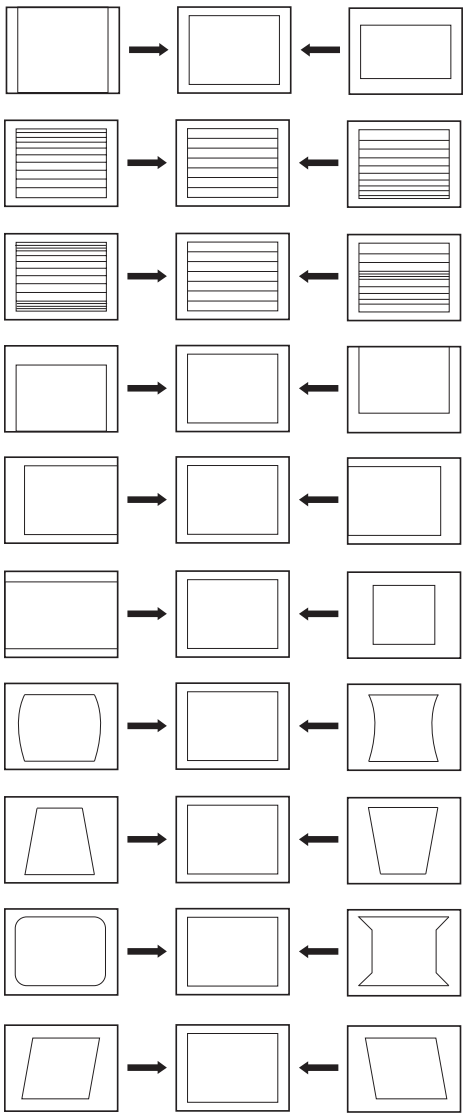
Defl.Cont. SDA9361		
1	V SIZE	ADJ
2	V POSITION	ADJ
3	V LINEARITY	ADJ
4	S CORRECTION	ADJ
5	H SIZE	ADJ
6	PIN AMP	ADJ
7	UPPER CORNER PIN	ADJ
8	LOWER CORNER PIN	ADJ
9	V BOW	ADJ
10	PIN PHASE	ADJ
11	V ANGLE	ADJ

DEFLECTION ADJUSTMENT FOR SMART MODE

1. Input an Phillips pattern.
2. Switch the TV into smart mode.
3. Enter into the service menu by pressing ‘TEST’ ‘TEST’ and ‘MENU’ ‘MENU’ on the remote commander.
4. Select ‘Deflect.Cont SDA9361’ from the ‘Devices’ menu.
5. The ‘Deflect.Cont SDA9361’ menu will appear on screen.
6. Select and adjust each item to obtain optimum image.
7. Return to the ‘Devices’ menu.
8. Select the ‘Deflect cont.Subadjust’ menu.
9. Select and adjust each item to obtain optimum image.
10. Return to the ‘Devices’ menu.
11. Select the ‘Subadjust’ menu.
12. Select and adjust each item to obtain optimum image.
13. Repeat above steps in Digital mode.

SUB ADJUSTMENT		
1	RGB Level	8
2	Menue/Text H-pos	-2
3	Extra Framing Window	255
4	4/3 Center	

DEFLECTION CONTR.SUBADJUST		
1	SMART V SIZE	54
2	SMART V POSITION	220
3	SMART V LINEARITY	215
4	SMART S CORRECTION	236
5	SMART H SIZE	80
6	SMART PIN AMP	217
7	SMART UPPER CORNER PIN	17
8	SMART LOWER CORNER PIN	189
9	SMART V BOW	243
10	SMART PIN PHASE	202
11	SMART V ANGLE	5



4-2. TEST MODE 2:

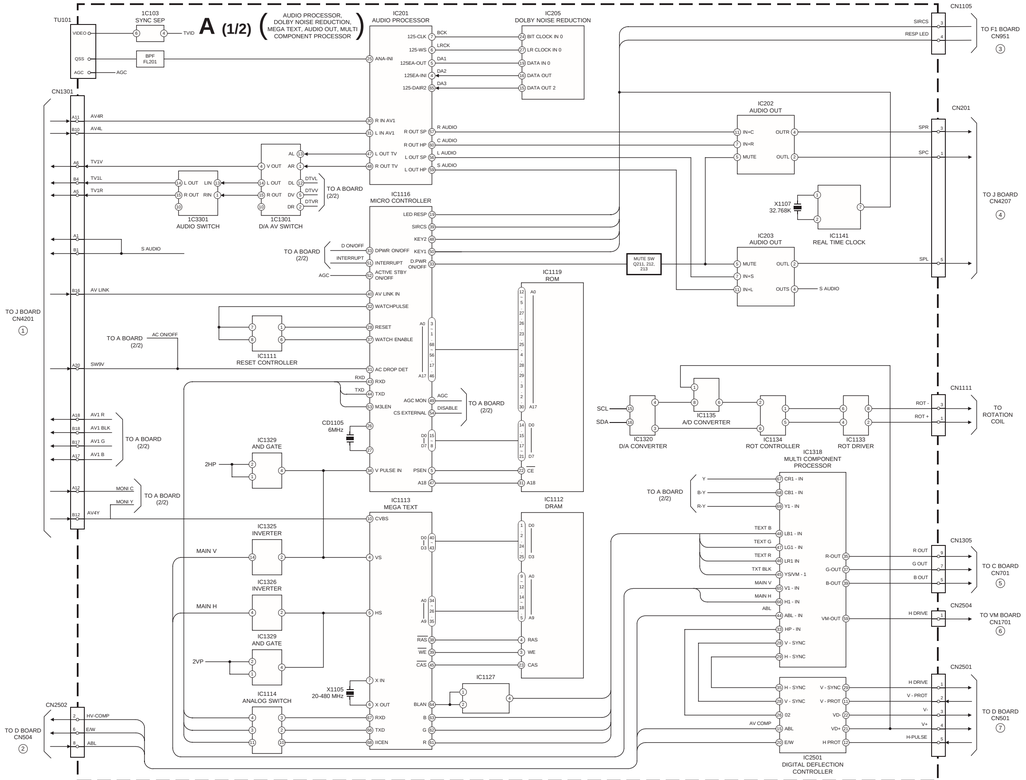
Is available by pressing ‘TEST’ button twice, OSD ‘TT’ appears. The functions described below are available by pressing the two numbers. To release the Test mode 2, press 0 twice, or switch the TV into stand-by mode, or press the 🖵 TV button on the remote commander.

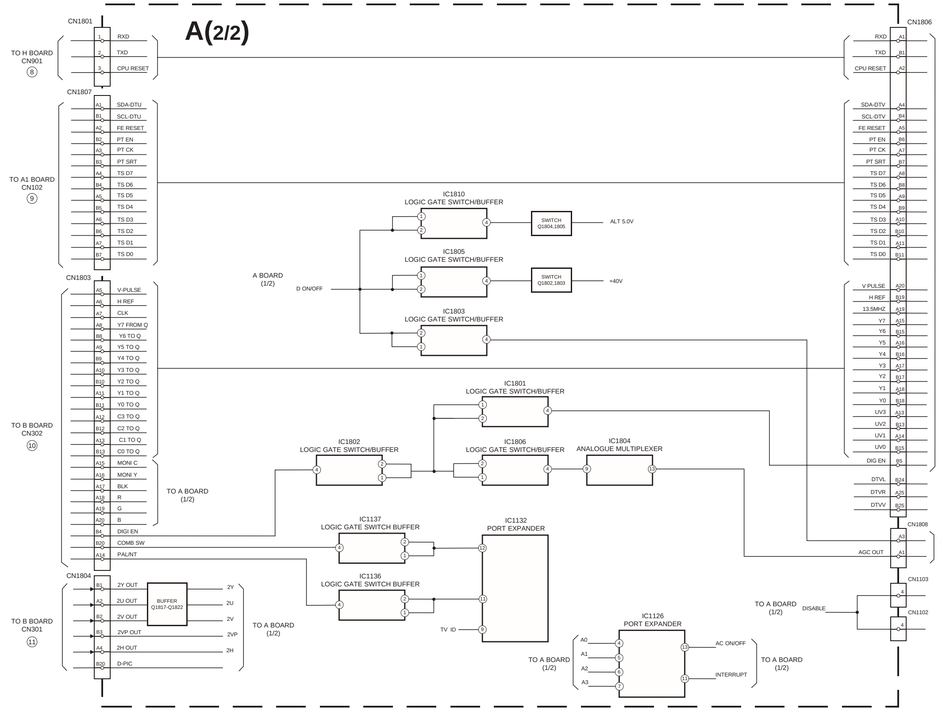
00	Cancel Test mode
01	Picture maximum - Colour Minimum
02	Direct Access to Noise Reduction
03	Volume 35%
04	Display Service Menu in Service mode
05	Display Service Menu in Production mode
06	Volume 80%
07	Ageing mode On/Off
08	Set shipping conditions
09	No function
10	TT number will be deleted
11	No function
12	Sub Colour Adjustment
13	Display software version and TV configuration
14	Production Info Display
15	Read factory setting
16	Save Last Power Memory data
17	Label AV sources
18	Level 2.5 Text Feature on/off
19	Set volume to 50%
20	TT number will be deleted
21	Picture Rotation
22	Operating Timer and Error monitor display
23	Status menu display
24	Direct access to sub colour
25	Status menu display
26	Text character set
27	Text character set
28	Text character set
29	Text character set
30	TT number will be deleted
31	Geometry adjustment 1
32	Geometry adjustment 2
33	No function
34	Reset NVM
35	Disable/Enable picture blanking
36	No function
37	Phillips Bug switch
38	Fast Helper switch
39	Reset Programme Table
40	TT number will be deleted
41	Screen Mode check

42	Auto-shut-off
43	NVM Map
44	Sub-Brightness Adjustment
45	No function
46	IR Channel Presetting Mode
47	Headphone Source Selection
48	Speaker Source Selection
49	EEPROM Testbyte is erased
50	TT number will be deleted
51	Strobe mode test
52	Reserved for uCon internal Test
53	Dynamic picture (AI) check
54	Velocity Modulation (VM) check
55	MTX Slicer Control
56	MTX Slicer Control
57	Megatext Service Menu
58	MTX Small Framing Code Window
59	MTX Wide Framing Code Window
60	TT number will be deleted
61	Sound default
62	No function
63	No function
64	Reset IIC Slave Commands
65	Reset Error Codes
66	No function
67	Headphone Volume
68	Ignore Errors
69	Reset Ignore Errors
70	TT number will be deleted
71	No function
72	NVM Subadjustment default
73	Clear programs
74	NVM Port-Expander default
75	No function
76	NVM default data
77	NVM D/A converter default
78	No function
79	No function
80	TT number will be deleted
81	NVM feature box default
82	No function
83	No function

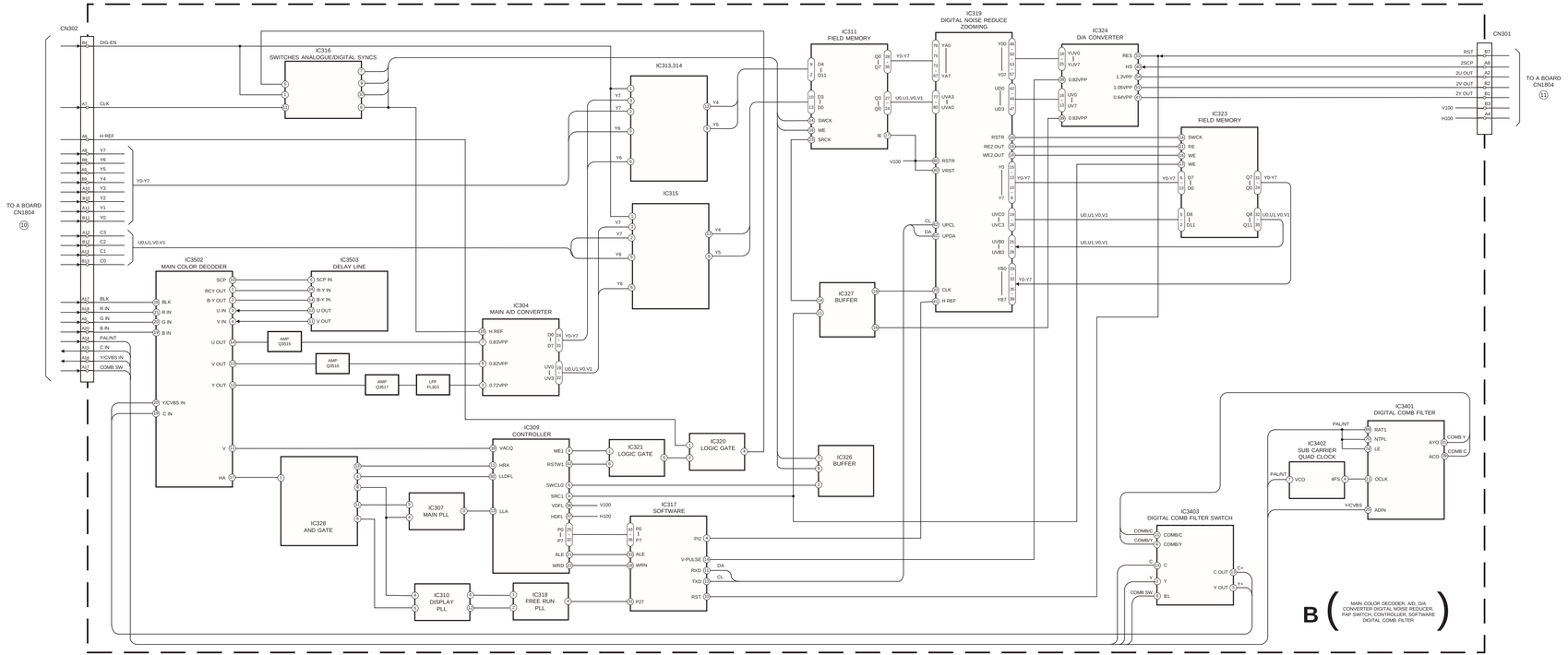
84	NVM MCP default
85	NVM main colour decoder default
86	Display BER
87	No function
88	Text character set Russian/East
89	Text character set Russian/West with ESC
90	TT number will be deleted
91	Dolby Mode Normal
92	ASIC-Version
93	NVM MCP subadjustment default
94	Noise Sequencer Left
95	Noise Sequencer Center
96	Noise Sequencer Right
97	Noise Sequencer Surround
98	Surround Mode off
99	Dolby Mode Phantom

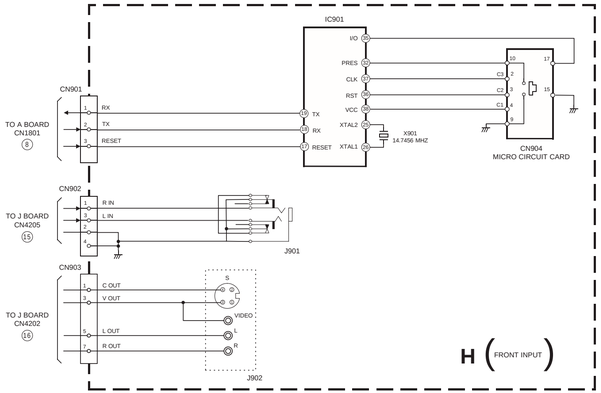
5-1 BLOCK DIAGRAMS (1)

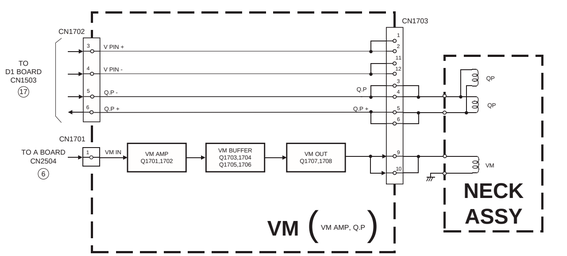




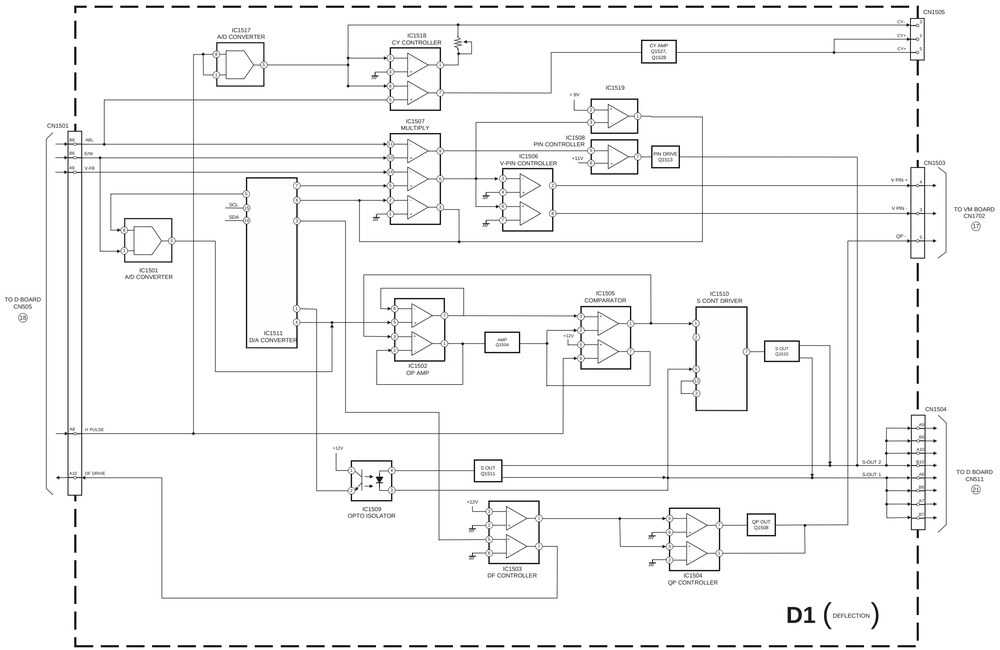
BLOCK DIAGRAMS (2)

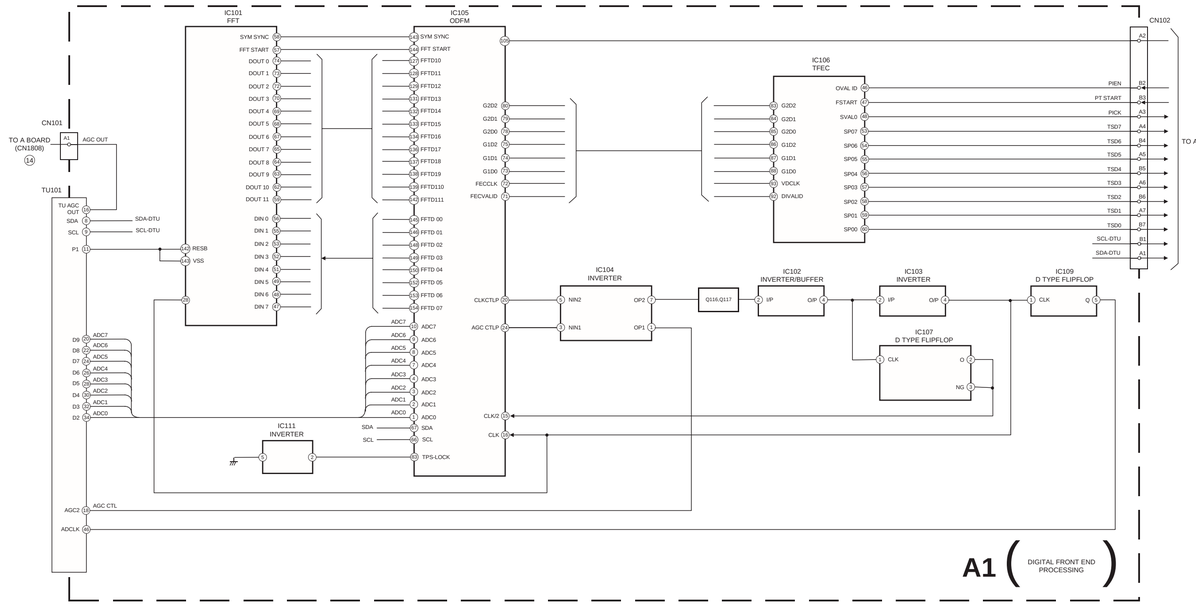


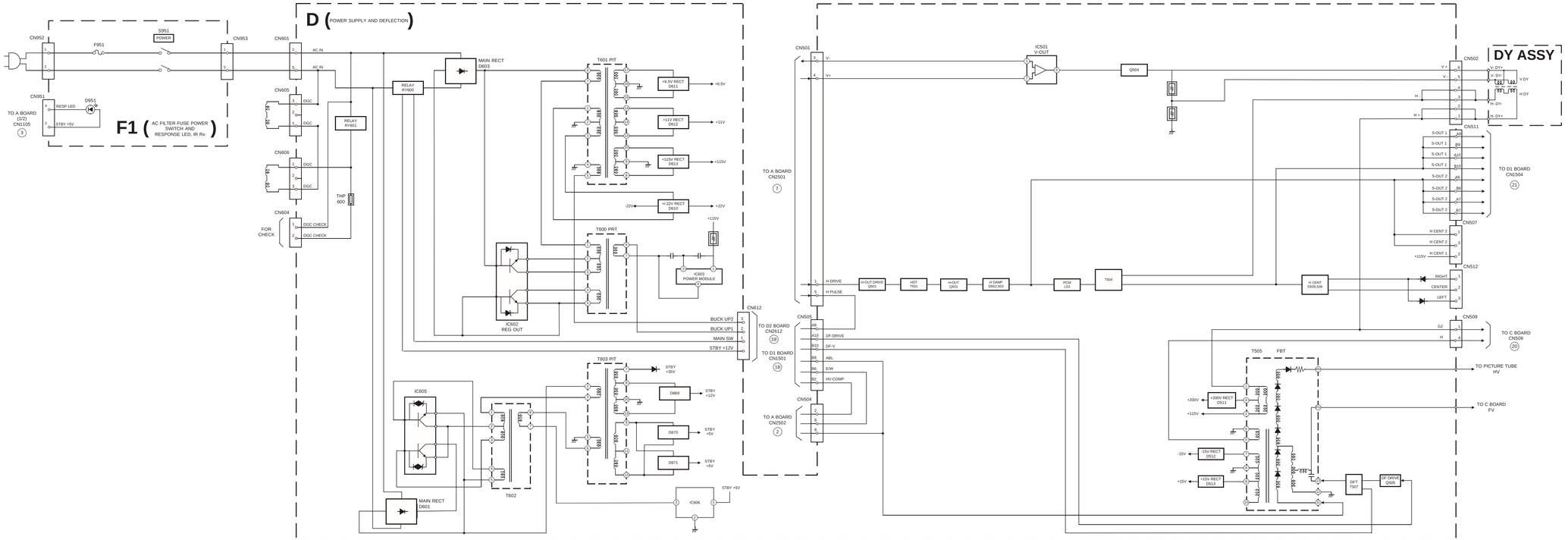




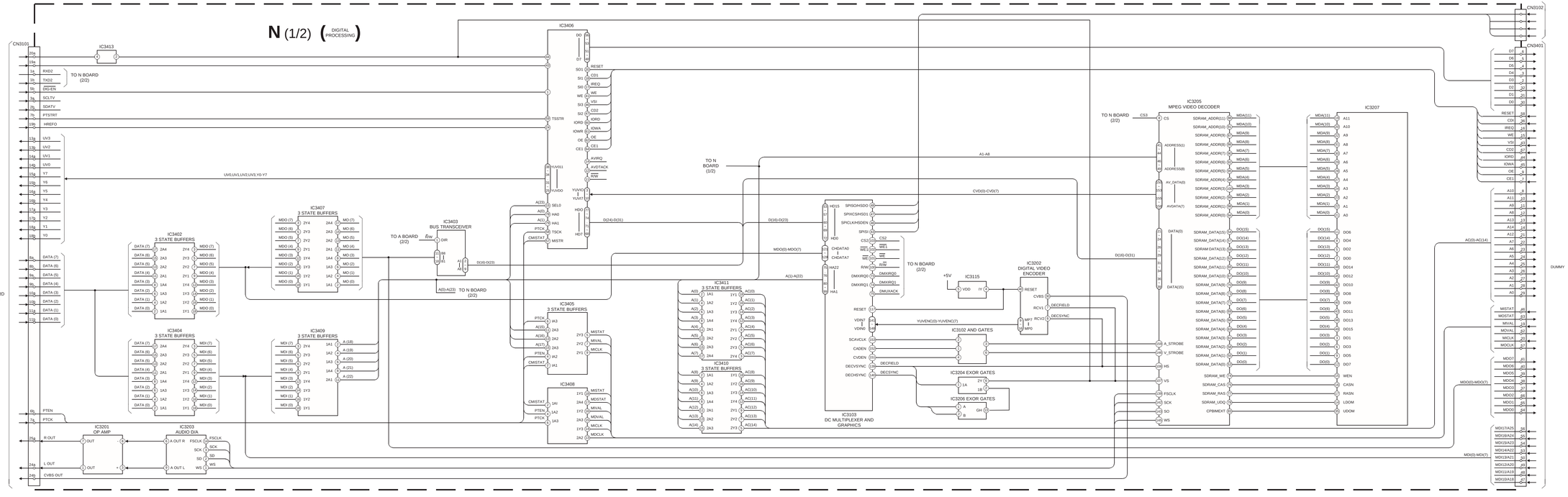
BLOCK DIAGRAMS (3)



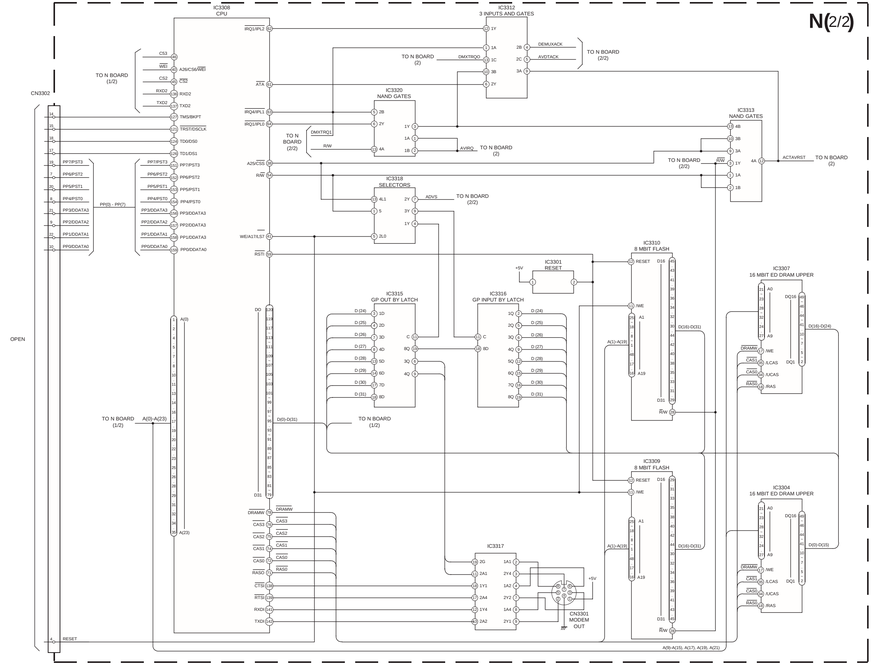


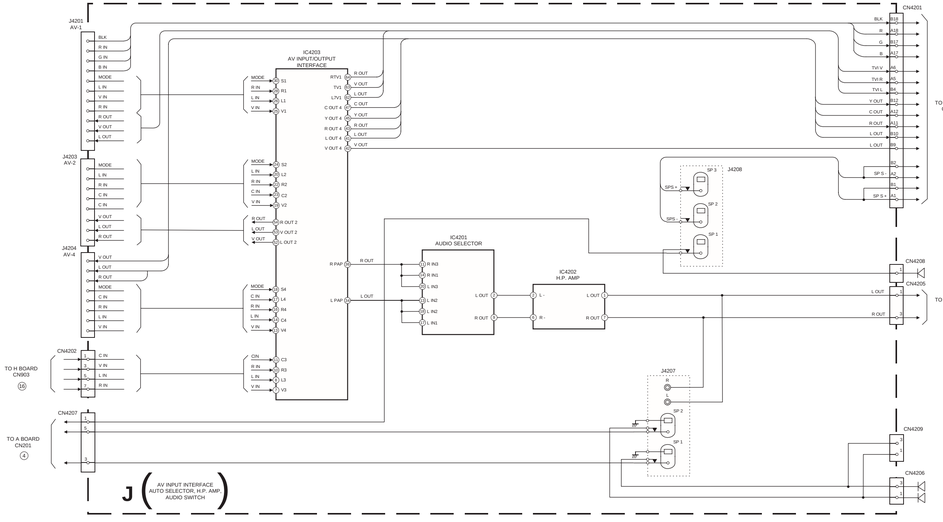

D (POWER SUPPLY AND DEFLECTION)
F1 (AC FILTER FUSE POWER SWITCH AND RESPONSE LED, IR Rx
CN952
S951
POWER
F951
CN953
CN601
AC IN
CN951
D951
RESP LED
STBY +5V
TO A BOARD (1/2) CN1105
CN605
DGC
CN606
CN604
FOR CHECK
DGC CHECK
RELAY RY601
RELAY RY600
THP 600
MAIN RECT D603
T601 PIT
+6.5V RECT D611
+11V RECT D612
+115V RECT D613
+/-22V RECT D610
+6.5V
+11V
+115V
+22V
-22V
T600 PRT
IC603 POWER MODULE
IC602 REG OUT
CN612
BUCK UP2
BUCK UP1
MAIN SW
STBY +12V
T603 PIT
STBY +35V
D669
STBY +12V
D670
STBY +5V
D671
STBY +5V
IC605
T602
MAIN RECT D601
IC606
CN501
V-
V+
IC501 V-OUT
Q504
TO A BOARD CN2501
7
H DRIVE
H PULSE
H-OUT DRIVE Q901
HDT T601
H-OUT Q901
H DAMP D902,903
PCM L53
T504
H CENT D505,506
CN505
DF-DRIVE
DF-V
ABL
E/W
HV-COMP
CN504
TO A BOARD CN2502
2
TO D2 BOARD CN2613
10
TO D1 BOARD CN1501
18
DY ASSY
CN502
V DY+
V DY-
V DY
H DY
H DY-
H DY+
CN511
S-OUT 1
S-OUT 2
TO D1 BOARD CN1504
21
CN507
H CENT 2
H CENT 1
+115V
CN512
RIGHT
CENTER
LEFT
CN509
G2
H
TO C BOARD CN509
20
T505 FBT
TO PICTURE TUBE HV
TO C BOARD FV
+200V RECT D511
+200V
+115V
-15V RECT D512
-15V
+15V RECT D513
+15V
DF-V T507
DF DRIVE Q505

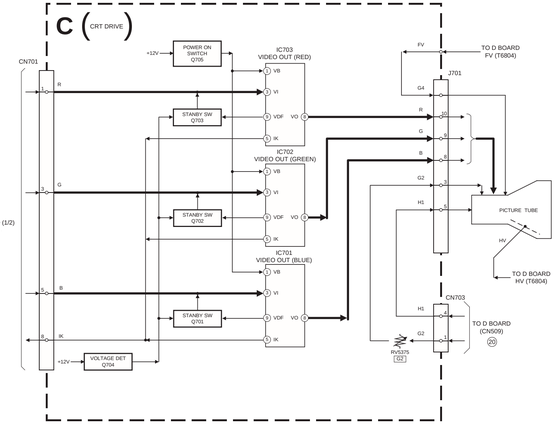
BLOCK DIAGRAMS (5)

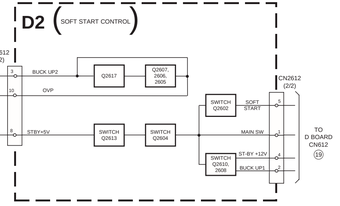


BLOCK DIAGRAMS (6)

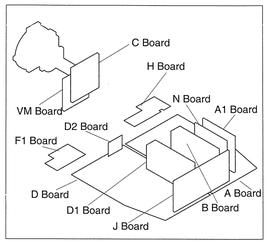








5-2. CIRCUIT BOARD LOCATION



5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note :

- All capacitors are in µF unless otherwise noted.
- pF : µµF 50WV or less are not indicated except for electrolytic types.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch : 5mm
Electrical power rating : 1/4W

- Chip resistors are 1/10W
- All resistors are in ohms.
  k = 1000 ohms, M = 1000,000 ohms
- : nonflammable resistor.
- : fusible resistor.
- : internal component.
- : panel designation or adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- All voltages are in Volts.
- Readings are taken with a 10Mohm digital mutimeter.
- Readings are taken with a color bar input signal.
- Voltage variations may be noted due to normal production tolerances.
- : B + bus.
- : B - bus.
- : RF signal path.
- : earth - ground.
- : earth - chassis.

Reference Information

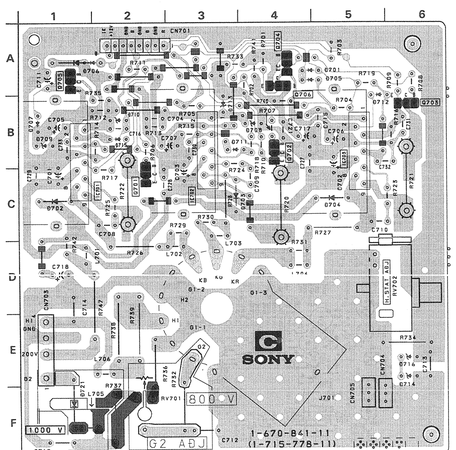
RESISTOR	**RN**	: METAL FILM
	RC	: SOLID
	FPRD	: NON FLAMMABLE CARBON
	FUSE	: NON FLAMMABLE FUSIBLE
	RS	: NON FLAMMABLE METAL OXIDE
	RB	: NON FLAMMABLE CEMENT
	RW	: NON FLAMMABLE WIREWOUND
	※	: ADJUSTMENT RESISTOR
COIL	**LF-8L**	: MICRO INDUCTOR
CAPACITOR	**TA**	: TANTALUM
	PS	: STYROL
	PP	: POLYPROPYLENE
	PT	: MYLAR
	MPS	: METALIZED POLYESTER
	MPP	: METALIZED POLYPROPYLENE
	ALB	: BIPOLAR
	ALT	: HIGH TEMPERATURE
	ALR	: HIGH RIPPLE

Note : The components identified by shading and marked ⚠ are critical for safety. Replace only with the part numbers specified in the parts list.

Note : Les composants identifiés par une trame et par une marque ⚠ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié. specified.

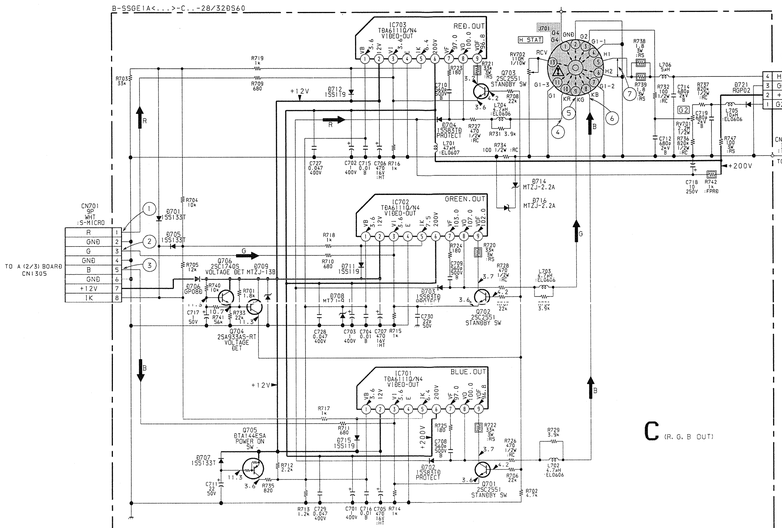
C [RGB OUT]

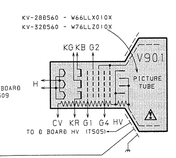
C Board



C BOARD

IC	
IC701	C - 1
IC702	C - 3
IC703	C - 5
TRANSISTOR	
Q701	C - 2
Q702	B - 4
Q703	A - 4
Q704	A - 4
Q705	A - 1
Q706	A - 4
DIODE	
D701	A - 4
D702	C - 1
D703	C - 3
D704	C - 5
D705	A - 4
D706	A - 1
D707	B - 1
D712	B - 5
D714	E - 5
D715	B - 2
D716	E - 5
D721	E - 1
VARIABLE RESISTOR	
RV701	E - 2
RV702	D - 5





WAVEFORMS C BOARD

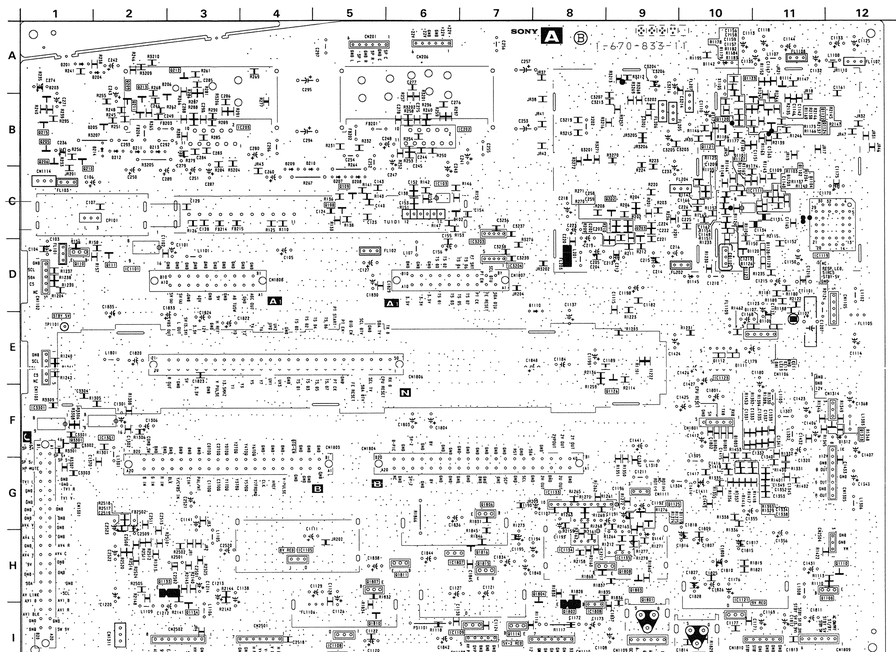
① 5.0 Vp-p (2H)	② 4.5 Vp-p (2H)	③ 4.5 Vp-p (2H)
④ 140 Vp-p (2H)	⑤ 120 Vp-p (2H)	⑥ 130 Vp-p (2H)
⑦ 25 Vp-p (2H)		

A BOARD

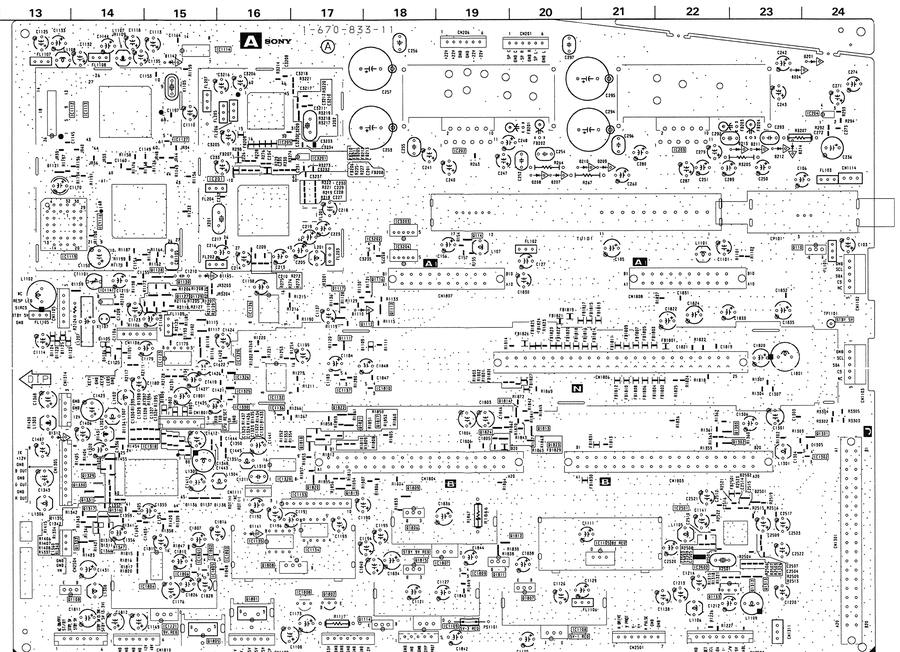
IC		TRANSISTORS		Q1805	I - 15	D1121	C - 13
IC103	C - 6	Q108	C - 5	Q1806	H - 18	D1122	E - 13
IC201	C - 15	Q109	C - 5	Q1807	I - 20	D1123	E - 14
IC202	G - 15	Q110	D - 23	Q1808	H - 16	D1124	E - 13
IC1400	B - 19	Q111	D - 2	Q1809	G - 18	D1125	E - 13
IC203	B - 22	Q114	D - 19	Q1810	I - 6	D1126	D - 11
IC204	B - 24	Q202	C - 9	Q1811	H - 6	D1127	D - 11
IC205	B - 16	Q203	C - 9	Q1812	H - 19	D1128	D - 11
IC1101	D - 2	Q205	B - 1	Q1813	F - 20	D1129	D - 11
IC1105	H - 21	Q206	B - 1	Q1814	F - 20	D1135	H - 13
IC1108	I - 5	Q209	A - 2	Q1815	H - 18	D1136	G - 15
IC1109	I - 19	Q210	B - 2	Q1816	H - 7	D1137	G - 15
IC1111	C - 11	Q211	B - 2	Q1817	F - 18	D1138	G - 15
IC1112	B - 13	Q212	A - 3	Q1819	G - 17	D1139	D - 14
IC1113	B - 14	Q213	A - 2	Q1820	G - 17	D1141	H - 9
IC1114	A - 15	Q215	B - 1	G1821	F - 17	D1142	A - 15
IC1116	C - 14	Q1108	I - 14	Q1822	F - 17	D1143	C - 10
IC1119	C - 13	Q1110	H - 12	Q1823	G - 20	D1310	H - 14
IC1121	I - 15	Q1111	E - 17	Q1824	F - 19	D1311	H - 14
IC1123	E - 15	Q1113	E - 18	Q3301	F - 2	D1312	F - 12
IC1127	B - 15	Q1116	D - 18	DIODE		D1801	F - 10
IC1132	F - 16	Q1117	D - 17	D201	A - 24	D1802	F - 15
IC1133	G - 17	Q1120	B - 10	D203	A - 24	D1803	F - 10
IC1134	H - 17	Q1121	B - 10	D204	A - 23	D1804	F - 15
IC1135	H - 16	Q1122	B - 12	D207	C - 20	D1805	F - 15
IC1136	F - 16	Q1123	A - 11	D208	C - 20	D1806	F - 10
IC1137	F - 17	Q1124	B - 12	D209	C - 21	D2501	G - 23
IC1141	D - 14	Q1125	G - 10	D210	C - 21	D2502	G - 23
IC1301	F - 24	Q1127	D - 15	D211	B - 23	D3201	B - 8
IC1302	G - 24	Q1128	D - 15	D212	B - 23		
IC1318	G - 15	Q1129	D - 15	D213	B - 23		
IC1320	G - 16	Q1130	D - 15	D214	B - 23		
IC1325	F - 16	Q1133	H - 3	D1101	C - 11		
IC1326	F - 16	Q1134	I - 3	D1102	C - 11		
IC1329	E - 16	Q1301	F - 24	D1103	C - 11		
IC1330	F - 16	Q1302	F - 23	D1104	C - 11		
IC1801	H - 15	Q1303	F - 23	D1105	E - 14		
IC1802	H -15	Q1312	I - 23	D1106	E - 14		
IC1803	H - 16	Q1313	I - 23	D1107	E - 11		
IC1804	H - 15	Q1316	G - 14	D1108	C - 10		
IC1805	H - 13	Q1317	G - 14	D1109	E - 18		
IC1806	H - 15	Q1318	F - 12	D1110	D - 18		
IC1807	H - 19	Q1329	G - 14	D1111	E - 10		
IC1808	I - 17	Q1330	F-16	D1112	E - 10		
IC1809	H - 19	Q1332	F - 16	D1115	E - 15		
IC1810	F - 18	Q1801	I - 16	D1116	E - 15		
IC2501	G - 22	Q1802	I - 17	D1117	E - 15		
IC2502	H - 22	Q1803	H - 9	D1118	E - 15		
IC3301	F - 1	Q1804	I - 8	D1120	D - 11		

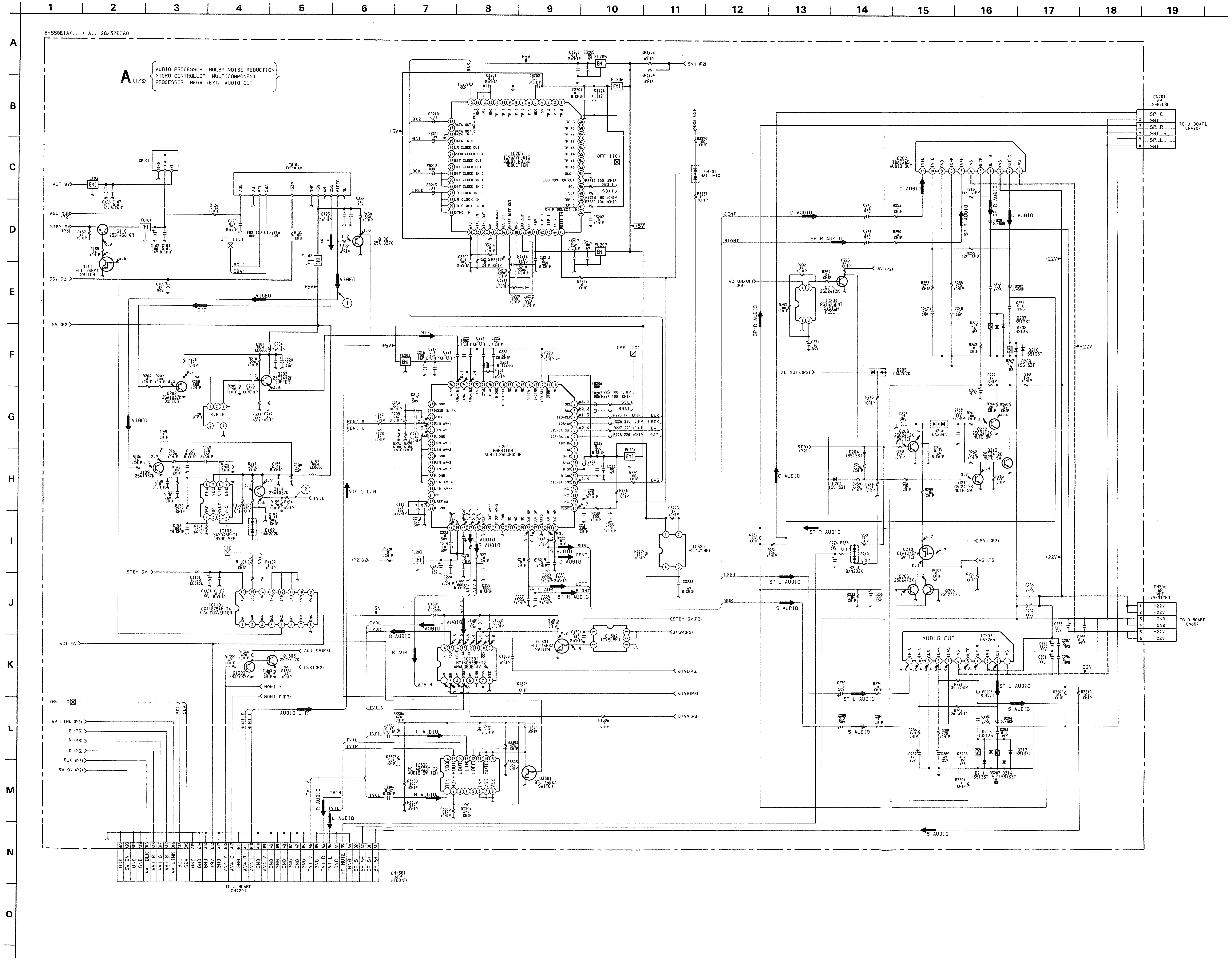
A AUDIO PROCESSOR/DNR/MICRO CONT.
MULTICOMPONENT PROCESSOR
MEGATEXT/AUDIO OUT

A Board <Conductor Side>

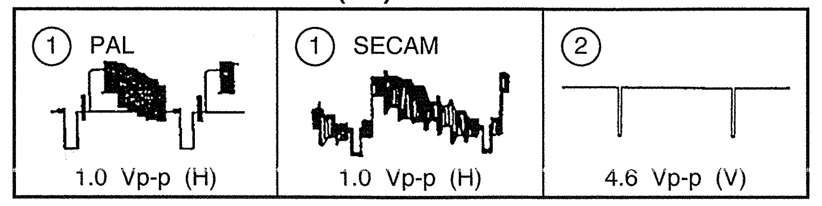


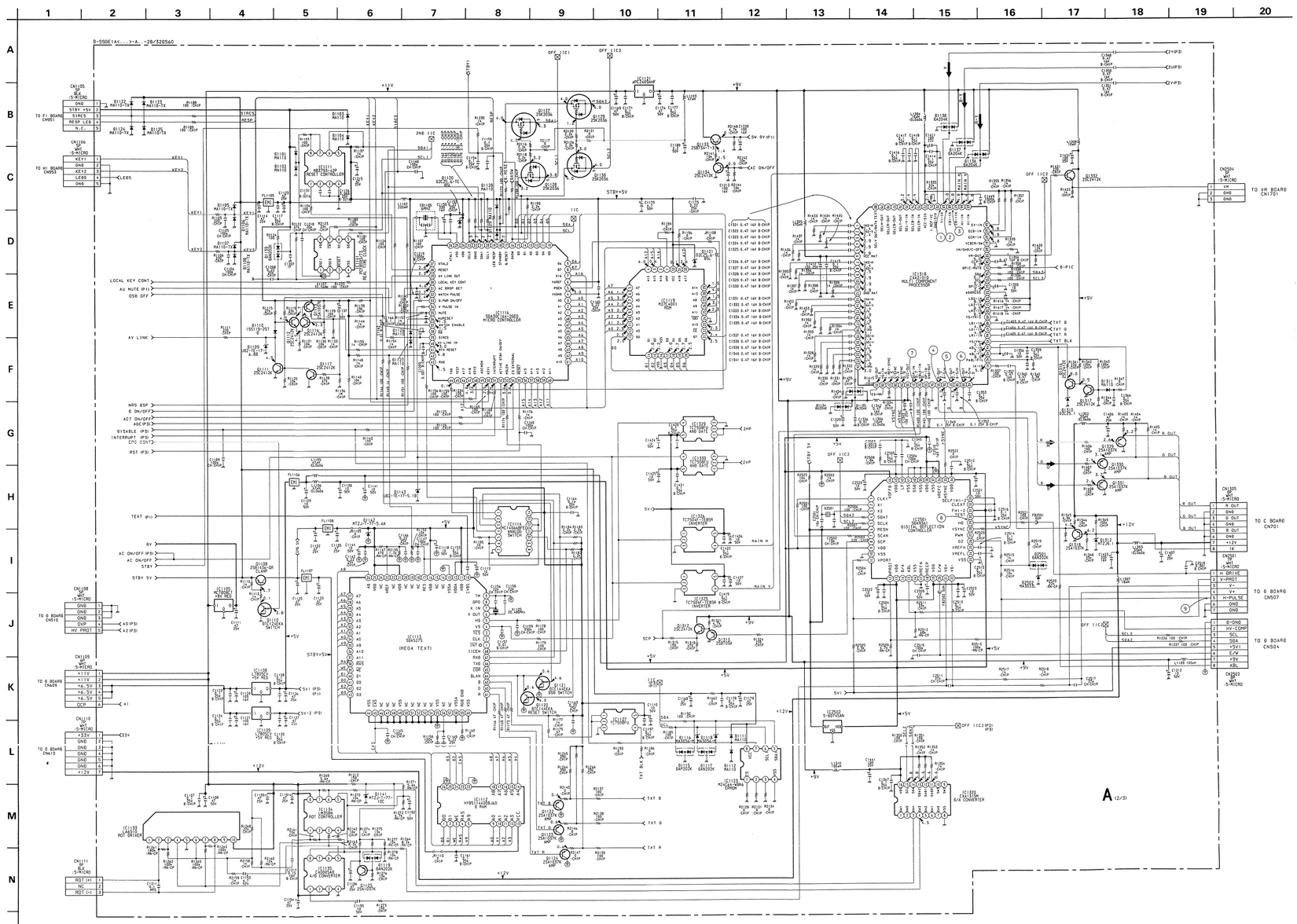
A Board <Component Side>




B-SSGE1A<...>-A..-28/32DS60
A (1/3)
AUDIO PROCESSOR, DOLBY NOISE REDUCTION
MICRO CONTROLLER, MULTICOMPONENT
PROCESSOR, MEGA TEXT, AUDIO OUT
TU101 TVF-01UK
IC205 TC9337F-015 DOLBY NOISE REDUCTION
IC201 MSP3410D AUDIO PROCESSOR
IC202 TDA7265 AUDIO OUT
IC203 TDA7265 AUDIO OUT
IC204 PST5750MT SYSTEM RESET
IC3201 PST5750MT
IC103 BA7046F-T1 SYNC SEP
IC1101 CXA1875AM-T4 D/A CONVERTER
IC1301 MC14053BF-T2 ANALOGUE AV SW
IC3301 MC14053BF-T2 AUDIO SWITCH
IC1302 TC7S08FU
CN201 6P :S-MICRO
SP C
GND C
SP R
GND R
SP L
GND L
TO J BOARD CN4207
CN206 6P WHT :S-MICRO
+22V
+22V
GND
GND
-22V
-22V
TO D BOARD CN607
CN1301 40P :BTOB (F)
TO J BOARD CN4201
ACT 9V
AGC MON (P2)
STBY 9V (P3)
33V (P2)
5V1 (P2)
STBY 5V
2ND IIC
AV LINK (P2)
B (P3)
G (P3)
R (P3)
BLK (P3)
SW 9V (P2)
VIDEO
SIF
TVID
AUDIO L.R
C AUDIO
SP R AUDIO
SP L AUDIO
S AUDIO
CENT
RIGHT
LEFT
SUR
AC ON/OFF (P3)
AU MUTE (P2)
STBY (P2)
8V (P2)
A3 (P3)
STBY 5V (P3)
DASW (P2)
DTVL (P3)
DTVR (P3)
DTVV (P3)
ACT 9V (P3)
TEXT (P2)
MONI Y
MONI C (P3)
NRS DSP
+22V
-22V

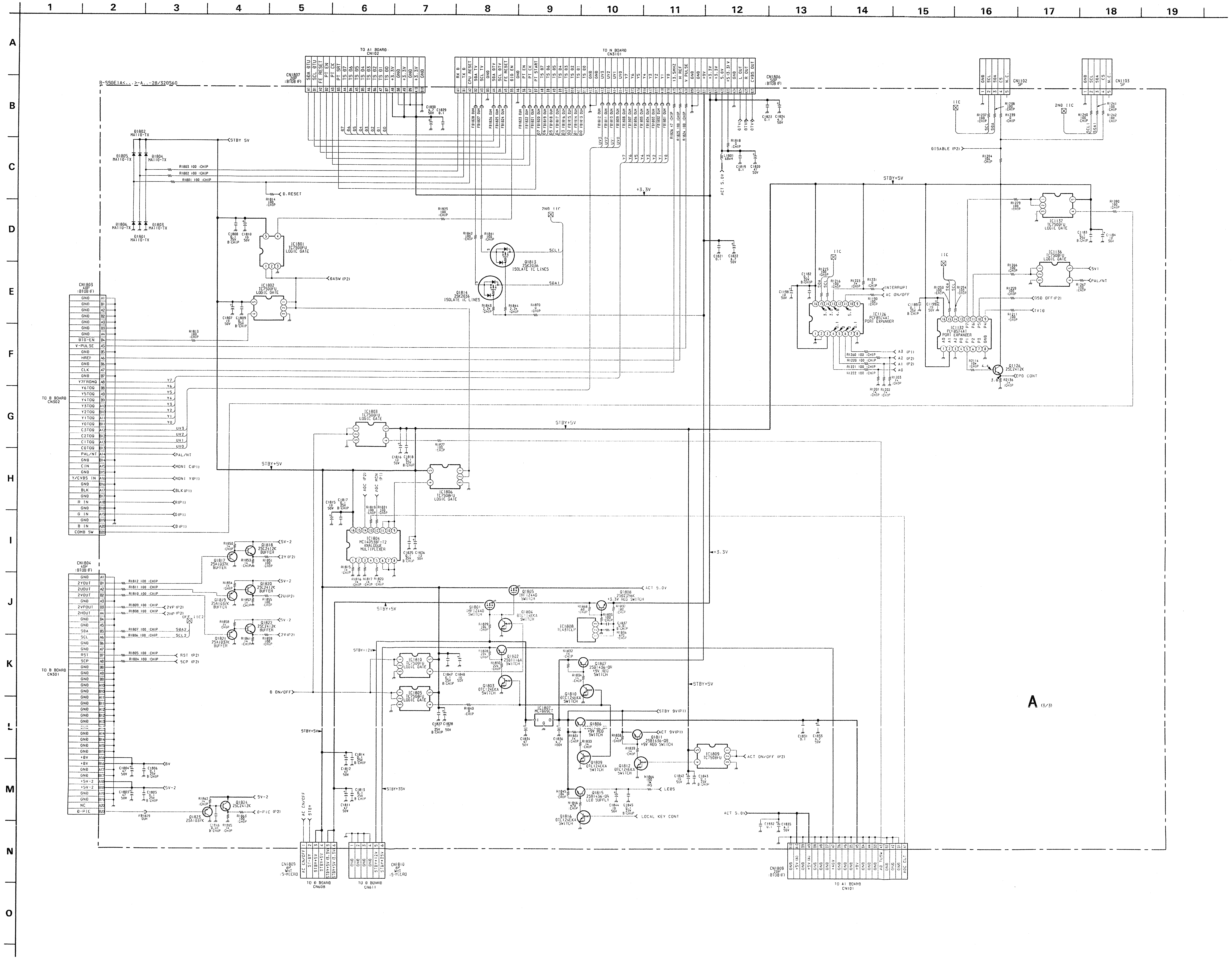
WAVEFORMS A BOARD (1/3)



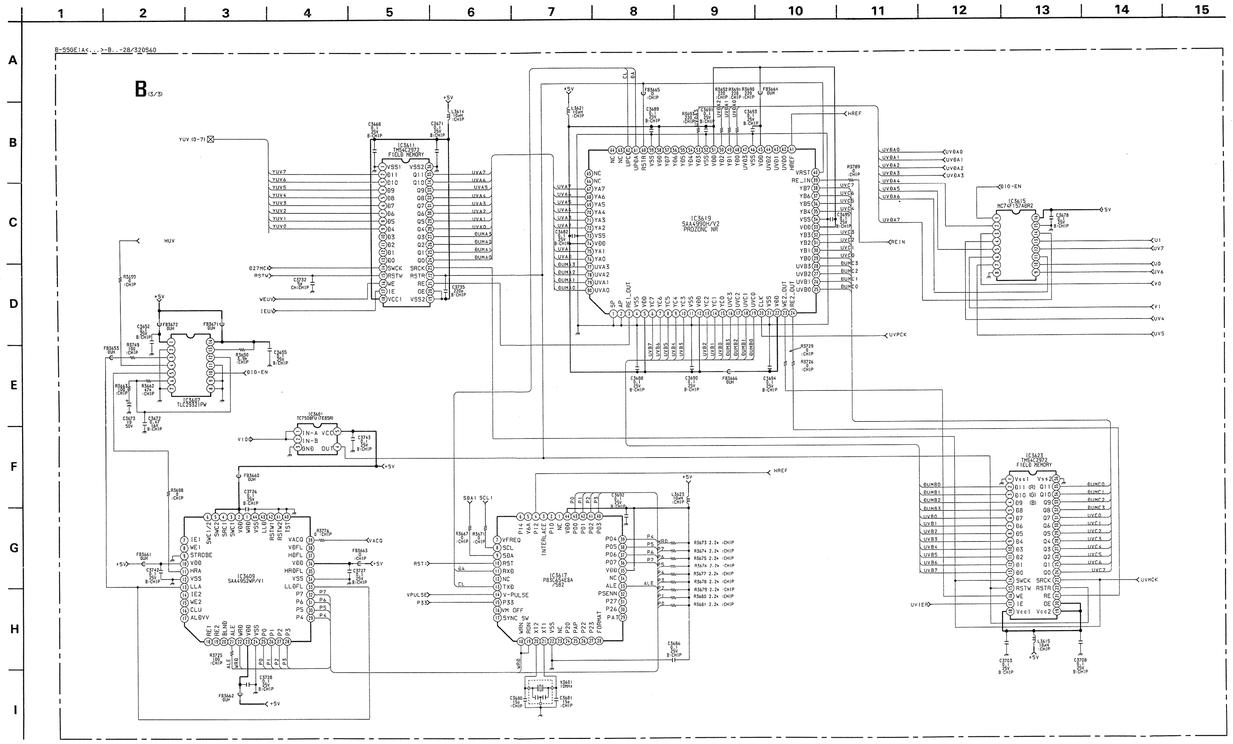


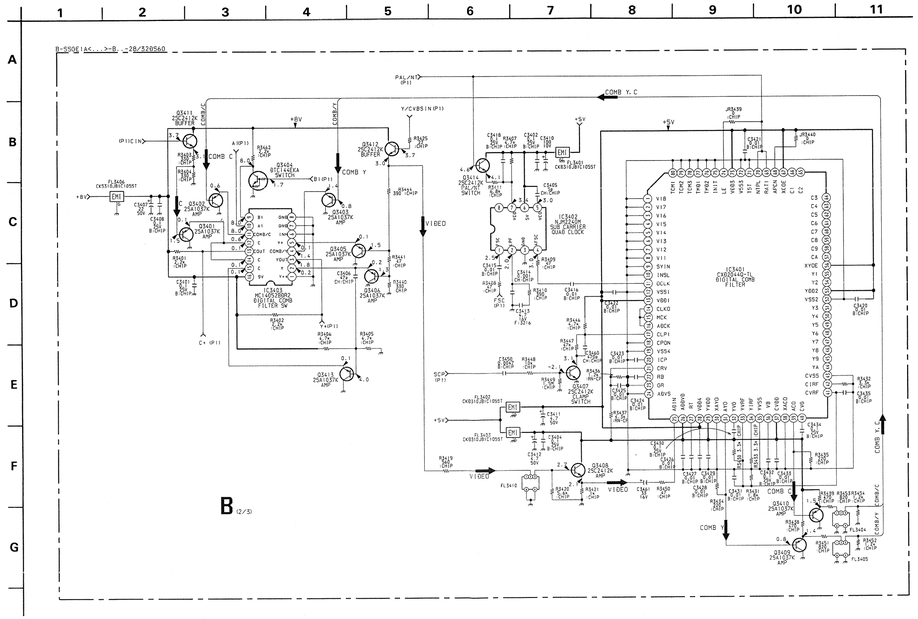
WAVEFORMS A BOARD (2/3)

① PAL	0.8 Vp-p (2H)	① SECAM	1.0 Vp-p (2H)	②	0.6 Vp-p (2H)
③	0.6 Vp-p (2H)	④	5.0 Vp-p (2H)	⑤	4.5 Vp-p (2H)
⑥	4.5 Vp-p (2H)	⑦	4.5 Vp-p (H)	⑧	5.0 Vp-p (2H)
⑨	95 Vp-p (2H)				



TO A1 BOARD CN102
CN1807 20P :BTOB (F)
TO N BOARD CN3101
CN1806 50P :BTOB (F)
CN1102 5P
CN1103 5P
CN1803 40P :BTOB (F)
TO B BOARD CN302
CN1804 40P :BTOB (F)
TO B BOARD CN301
IC1801 TC7S00FU LOGIC GATE
IC1802 TC7S00FU LOGIC GATE
IC1803 TC7S00FU LOGIC GATE
IC1806 TC7S08FU LOGIC GATE
IC1804 MC14053BF-T2 ANALOGUE MULTIPLEXER
Q1813 2SK2036 ISOLATE IC LINES
Q1814 2SK2036 ISOLATE IC LINES
IC1126 PCF8574AT PORT EXPANDER
IC1132 PCF8574AT PORT EXPANDER
IC1137 TC7S00FU LOGIC GATE
IC1136 TC7S08FU LOGIC GATE
Q1126 2SC2412K
Q1817 2SA1037K BUFFER
Q1818 2SC2412K BUFFER
Q1819 2SA1037K BUFFER
Q1820 2SC2412K BUFFER
Q1821 2SA1037K BUFFER
Q1822 2SC2412K BUFFER
Q1823 2SA1037K
Q1824 2SC2412K
Q1801 IRFZ44G SWITCH
Q1805 IRFZ44G SWITCH
Q1804 DTC114EKA SWITCH
Q1802 2SB1116A SWITCH
Q1803 DTC124EKA SWITCH
Q1808 2SD2396K +3.3V REG SWITCH
IC1808 TL431CLP
IC1810 TC7S00FU LOGIC GATE
IC1805 TC7S08FU LOGIC GATE
IC1807 MC7809CT
Q1807 2SB1436-QR +9V REG SWITCH
Q1810 DTC124EKA SWITCH
Q1806 2SB1436-QR +9V REG SWITCH
Q1809 DTC124EKA SWITCH
Q1811 2SB1436-QR +9V REG SWITCH
Q1812 DTC124EKA SWITCH
IC1809 TC7S08FU
Q1815 2SB1436-QR LED SUPPLY
Q1816 DTC124EKA SWITCH
CN1809 6P WHT :S-MICRO
TO D BOARD CN608
CN1810 6P WHT :S-MICRO
TO D BOARD CN611
CN1808 20P :BTOB (F)
TO A1 BOARD CN101
STBY 5V
STBY+5V
+3.3V
D.RESET
DASW (P2)
DISABLE (P2)
INTERRUPT
AC ON/OFF
OSD OFF (P2)
TV16
EPG CONT
SV1
PAL/NT
ACT 5.0V
STBY 9V(P1)
ACT 9V(P1)
ACT ON/OFF (P2)
LEDS
LOCAL KEY CONT
D ON/OFF
STBY+12V
STBY+35V
A (3/3)



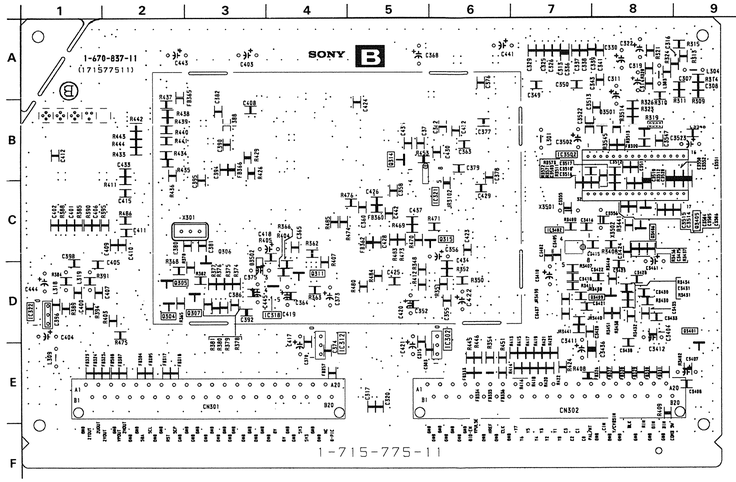


B BOARD

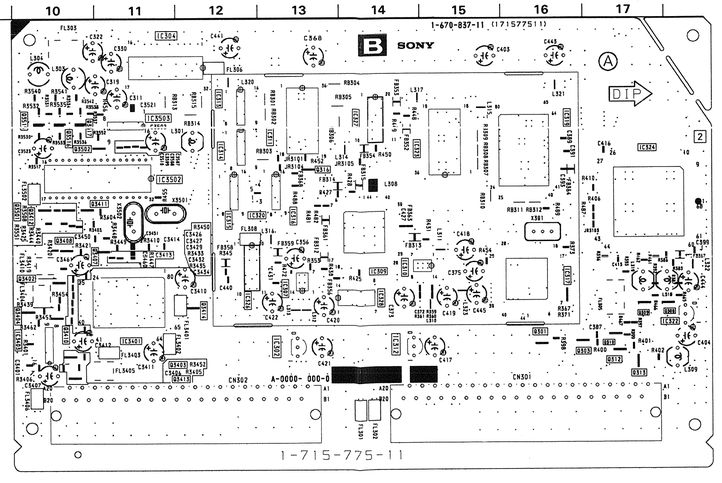
IC		Q304	D - 2
IC302	E - 14	Q305	D - 2
IC304	A - 12	Q307	D - 3
IC307	D - 14	Q308	D - 19
IC309	C - 15	Q309	D - 18
IC301	D - 16	Q300	E - 18
IC311	B - 14	Q311	D - 4
IC312	E - 15	Q312	E - 18
IC313	B - 13	Q313	E - 18
IC314	B - 14	Q314	B - 5
IC315	C - 13	Q315	C - 6
IC316	C - 14	Q316	B - 14
IC317	D - 17	Q3401	D - 9
IC318	D - 4	Q3402	D - 11
IC319	B - 17	Q3403	E - 13
IC320	C - 14	Q3404	D - 11
IC321	C - 6	Q3405	C - 9
IC323	B - 16	Q3406	C - 8
IC324	C - 18	Q3407	C - 12
IC326	D - 13	Q3408	C - 11
IC327	B - 15	Q3409	D - 8
IC328	D - 15	Q3410	D - 11
IC3401	D - 12	Q3411	C - 11
IC3402	C - 7	Q3412	C - 11
IC3403	D - 11	Q3413	E - 13
IC3502	B - 12	Q3414	D - 13
IC3503	B - 12	Q3501	C - 11
TRANSISTOR		Q3502	B - 12
Q301	D - 17	Q3515	B - 11
Q302	B - 8	Q3516	B - 11
Q303	E - 18	Q3517	B - 11

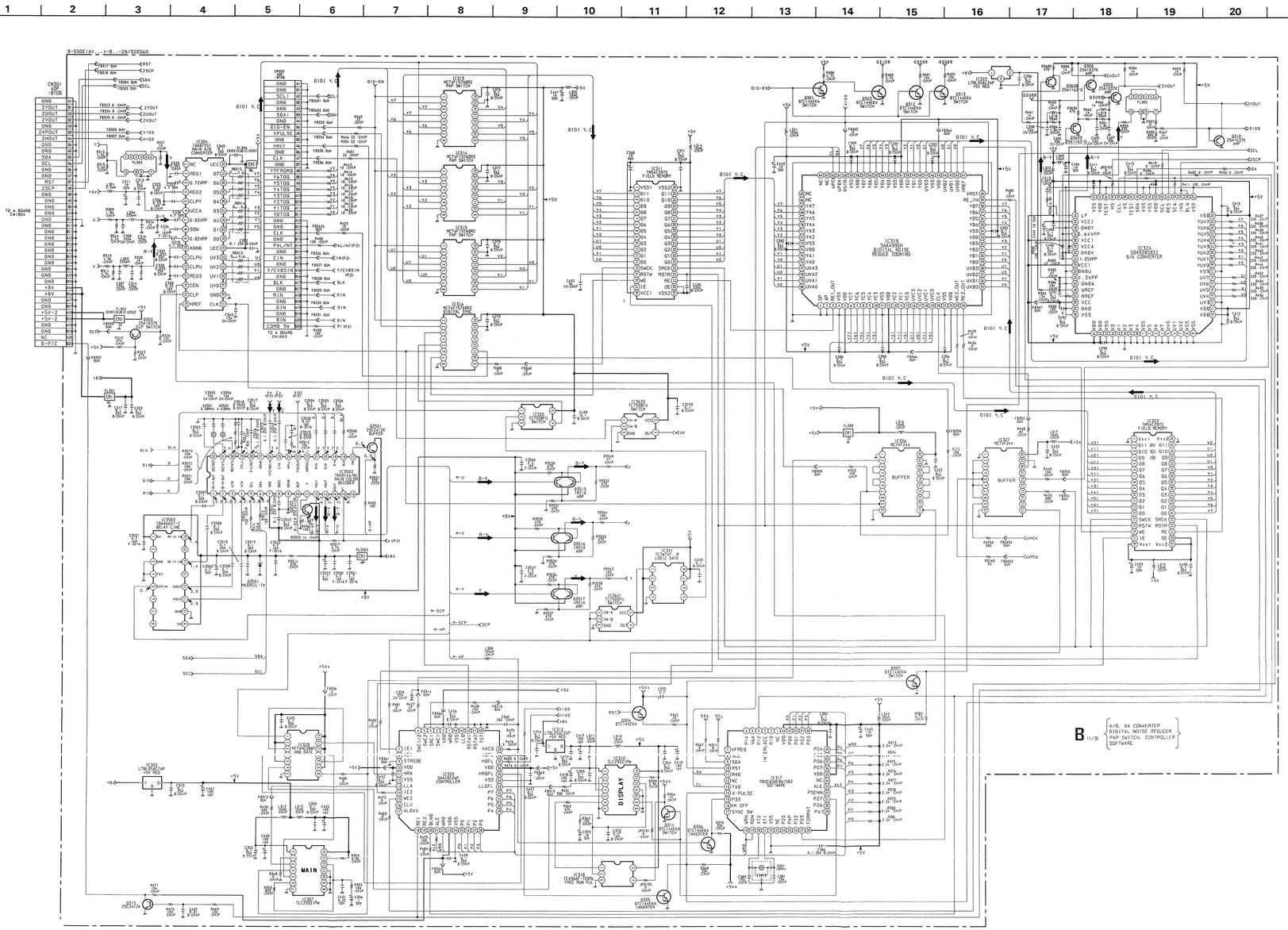
B MAIN COLOR DECODER A/D, D/A CONVERTER/ DIGITAL NOISE REDUCER

B Board <Conductor Side>

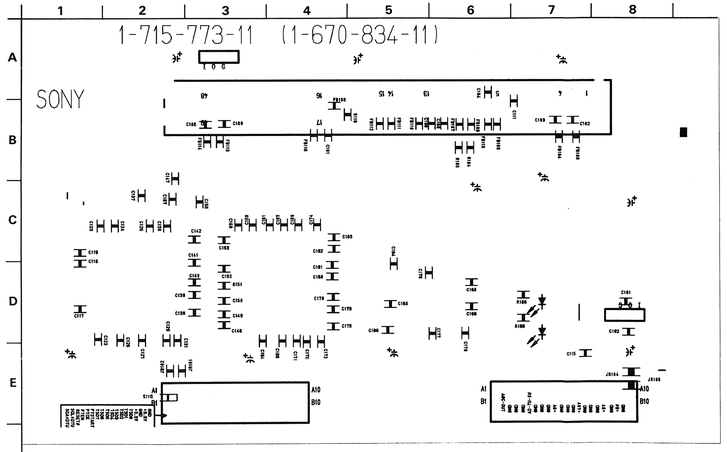


B Board <Component Side>

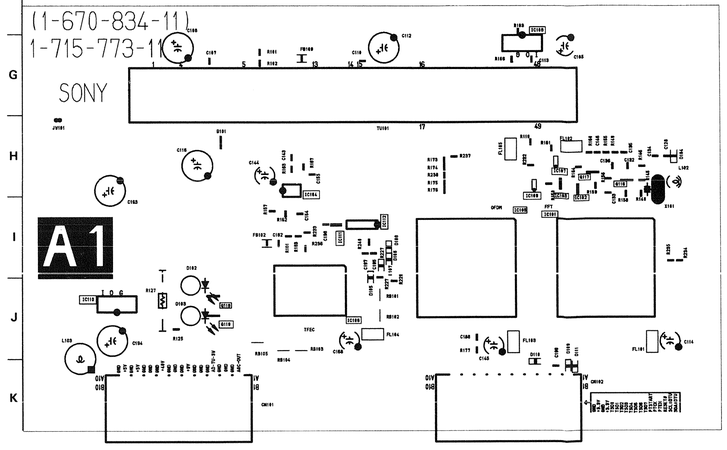



B (1/3) A/D, DA CONVERTER
DIGITAL NOISE REDUCER
PAP SWITCH, CONTROLLER
SOFTWARE
MAIN
DISPLAY
BUFFER
BUFFER

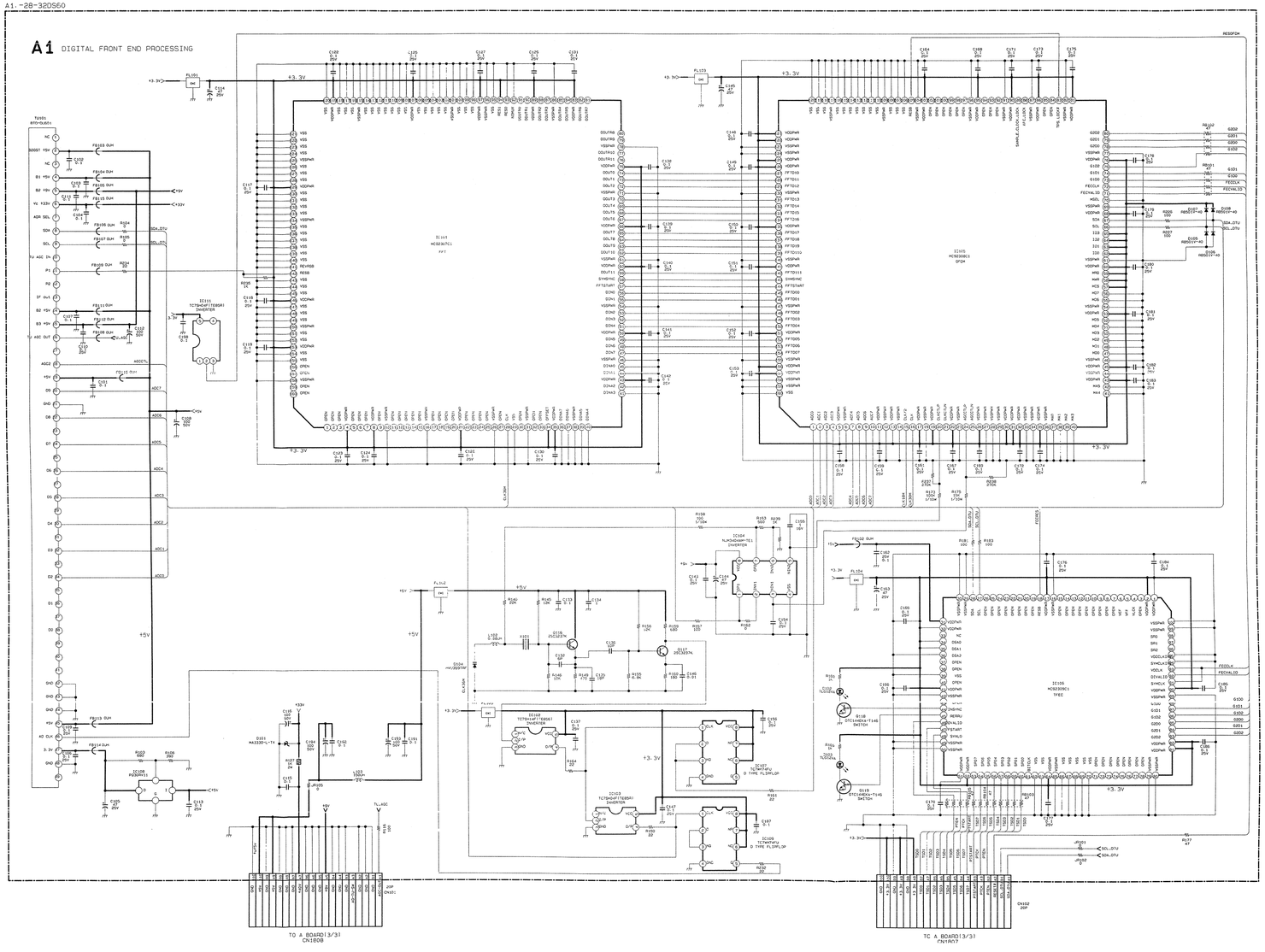
A1 Board <Conductor Side>



A1 Board <Component Side>

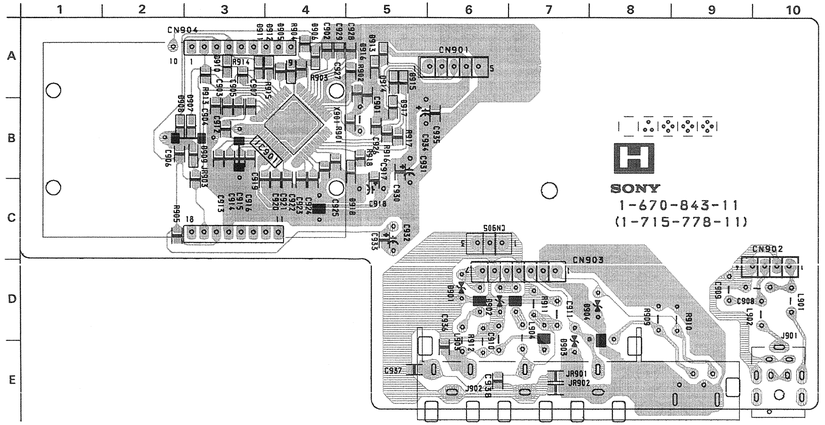


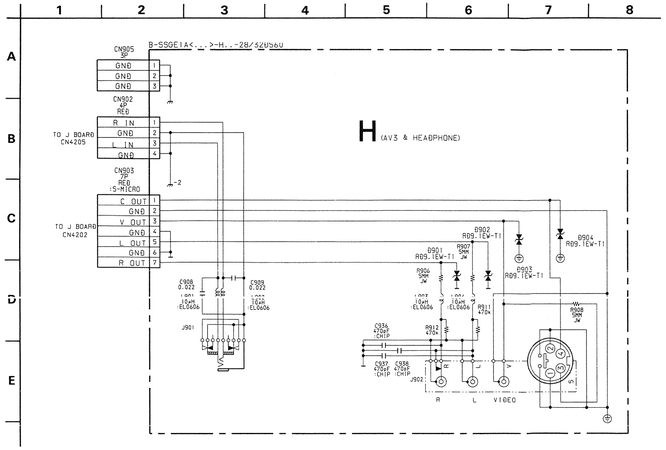
A1.-28-32DS60



H [AV3 & HEADPHONE]

H Board



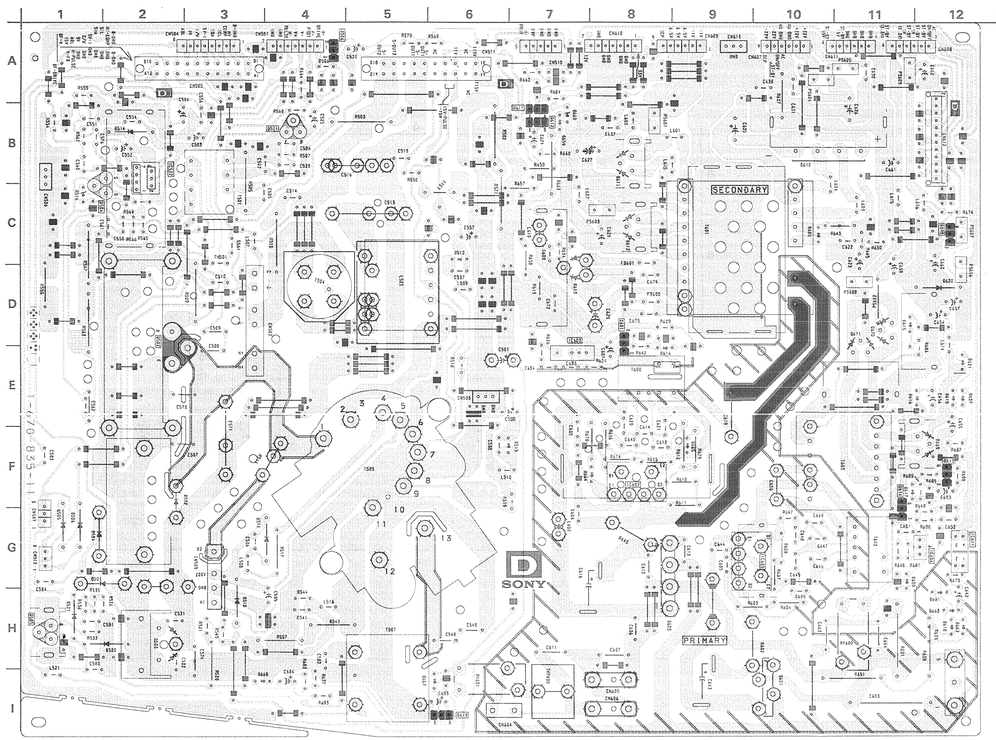


D1 BOARD

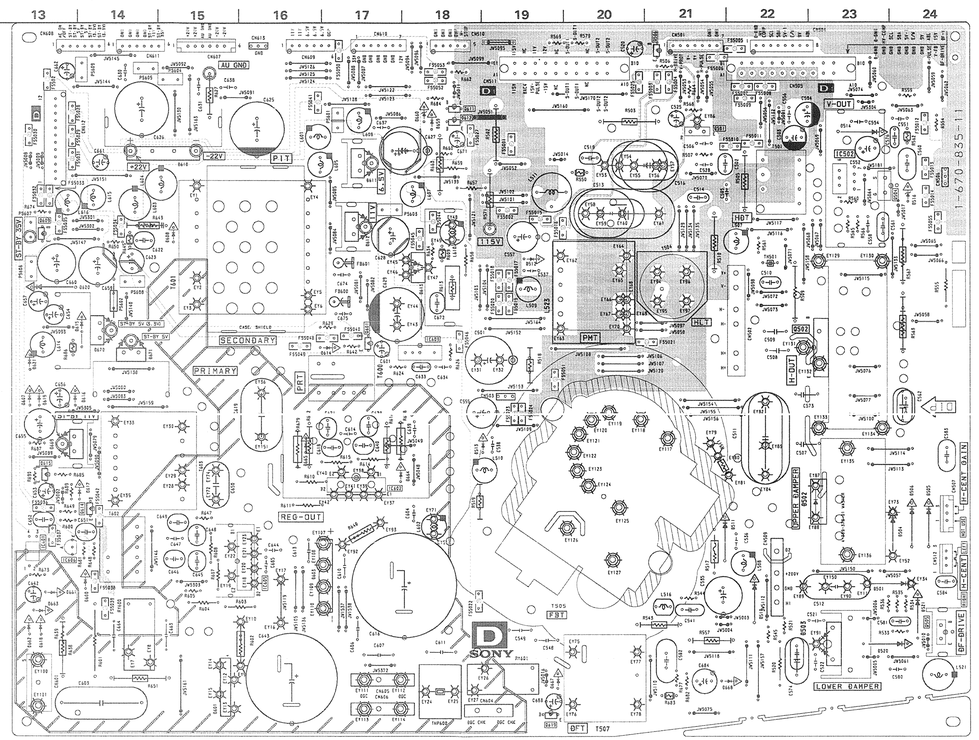
IC		Q1516	A - 11
IC1501	C - 12	Q1522	D - 15
IC1502	C - 13	Q1523	A - 6
IC1503	B - 10	Q1524	B - 10
IC1504	A - 11	Q1526	C - 9
IC1505	B - 14	Q1527	B - 9
IC1507	A - 15	Q1528	B - 10
IC1508	D - 12	Q1529	C - 8
IC1510	B - 13	Q1530	C - 8
IC1511	D - 11	Q1531	B - 9
IC1513	C - 10	**DIODE**	
IC1515	B - 11	D1502	B - 10
IC1517	B - 10	D1506	B - 12
IC1518	C - 10	D1509	B - 14
IC1519	A - 2	D1510	B - 12
TRANSISTOR		D1511	B - 12
Q1501	A - 10	D1512	B - 16
Q1502	C - 12	D1513	B - 15
Q1503	B - 13	D1515	D - 11
Q1504	B - 14	D1524	D - 12
Q1505	B - 14	D1529	B - 2
Q1506	B - 16	D1530	D - 14
Q1507	A - 15	D1531	D - 10
Q1508	A - 12	D1535	A - 11
Q1509	B - 16	D1546	C - 9
Q1510	C - 15	D1547	B - 9
Q1513	C - 14	D1548	B - 9
Q1514	C - 12	D1549	B - 14
Q1515	B - 4		

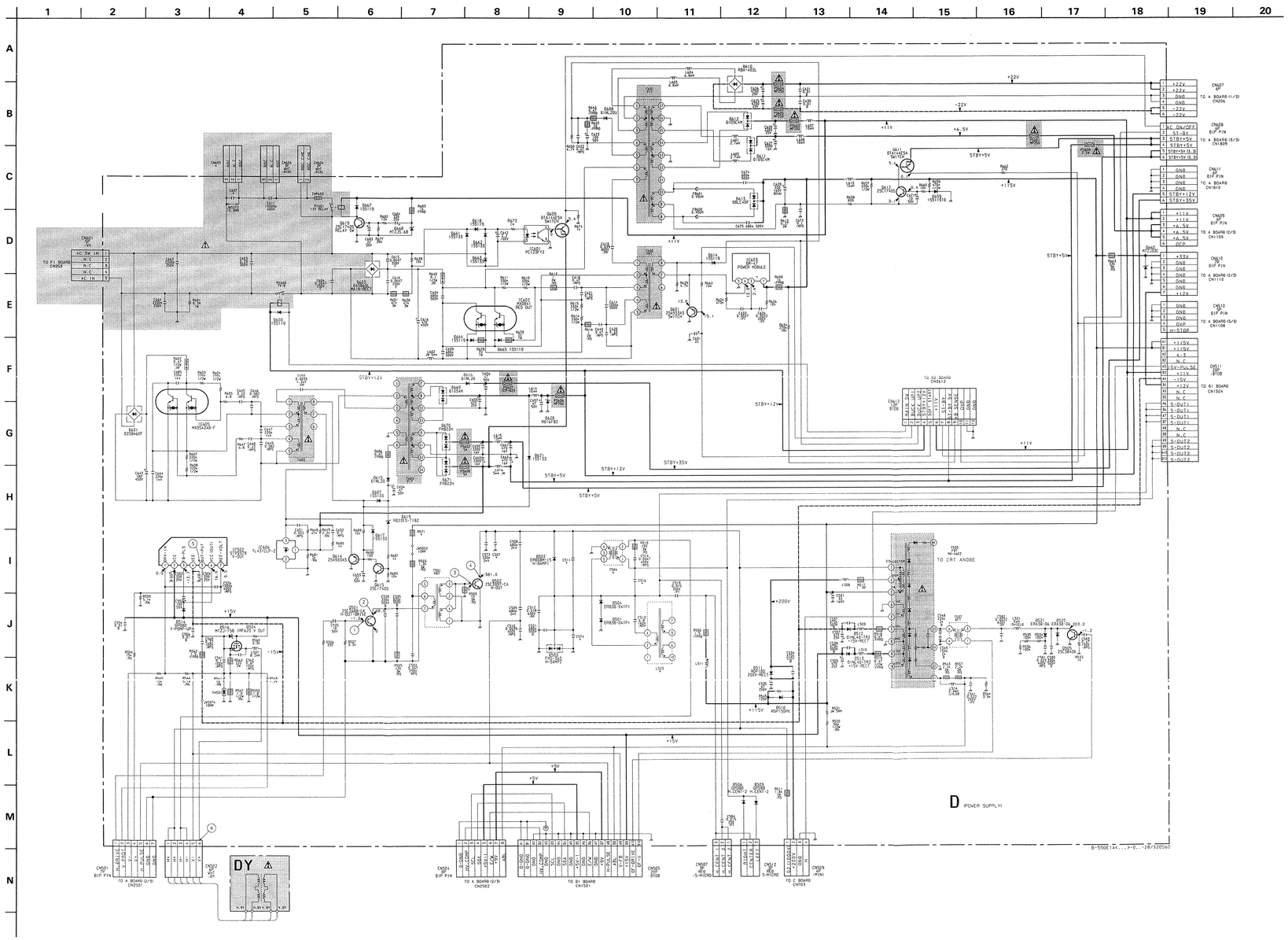
D [POWER SUPPLY AND DEFLECTION]

D Board <Conductor Side>



D Board <Component Side>



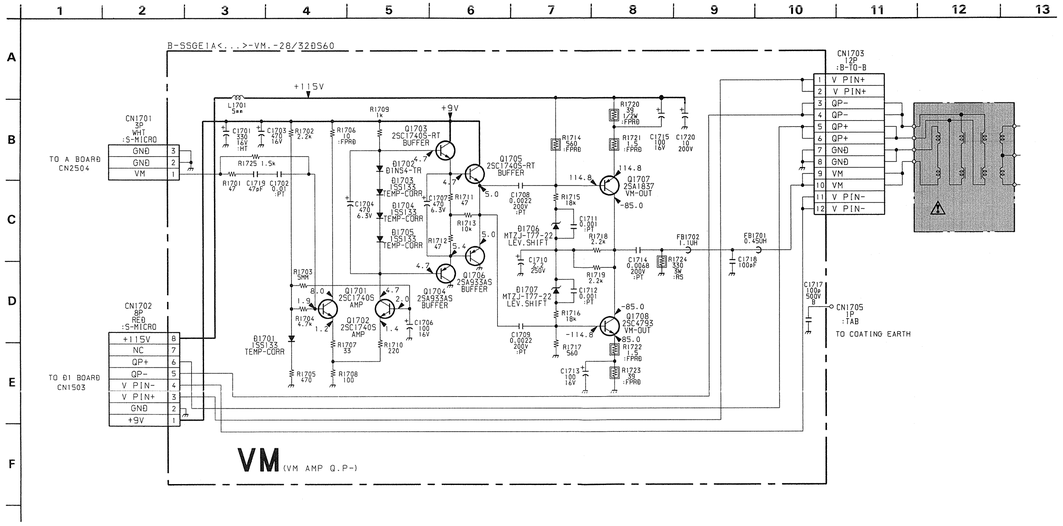


WAVEFORMS D BOARD

① 7.0 Vp-p (2H)	② 154 Vp-p (2H)	③ 10 Vp-p (2H)
④ 1.2K Vp-p (2H)	⑤ 60 Vp-p (2H)	⑥ 98 Vp-p (2H)

D BOARD * MARK

Ref	28DS60U	32DS60U
C507	-	330PF
C511	18000PF	0.017MF
C516	0.56MF	0.39MF
C574	0.0047MF	0.0033MF
C607	JW 10.0MM	0.01MF
CN505	-	3P
L523	1-416-447-11	1-416-448-11
R571	1K	1.2K
T504	1-431-599-11	1-431-600-11

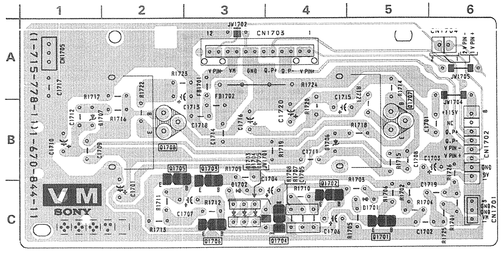


N BOARD

IC		IC3402	B - 8
IC3101	C - 18	IC3403	A - 9
IC3102	B - 19	IC3404	C - 9
IC3103	A - 18	IC3405	B - 9
IC3112	E - 8	IC3407	B - 17
IC3115	C - 10	IC3408	C - 9
IC3201	E - 14	IC3409	B - 17
IC3202	D - 15	IC3410	B - 17
IC3203	D - 14	IC3411	C - 17
IC3204	D - 8	IC3412	D - 16
IC3205	C - 19	IC3413	E - 16
IC3206	D - 8	**TRANSISTOR**	
IC3207	D - 20	Q3101	E - 19
IC3208	E - 9	Q3201	E - 9
IC3301	E - 13	Q3202	D - 9
IC3304	E - 22	Q3301	D - 13
IC3307	E - 22	Q3302	D - 10
IC3308	B - 22	Q3303	D - 10
IC3309	E - 21	Q3401	A - 10
IC3310	E - 21	Q3402	D - 7
IC3312	B - 22	**DIODE**	
IC3313	B - 22	D3305	E - 10
IC3315	E - 19	D3306	D - 13
IC3316	B - 10	D3307	D - 13
IC3317	E - 13	D3308	E - 13
IC3318	C - 10	D3309	E - 13
IC3320	B - 20		

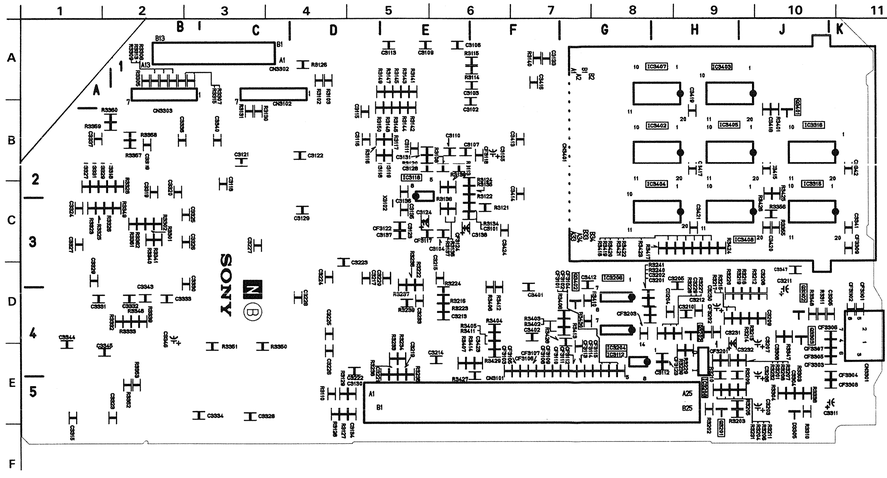
VM [VM AMP, QP]

VM Board

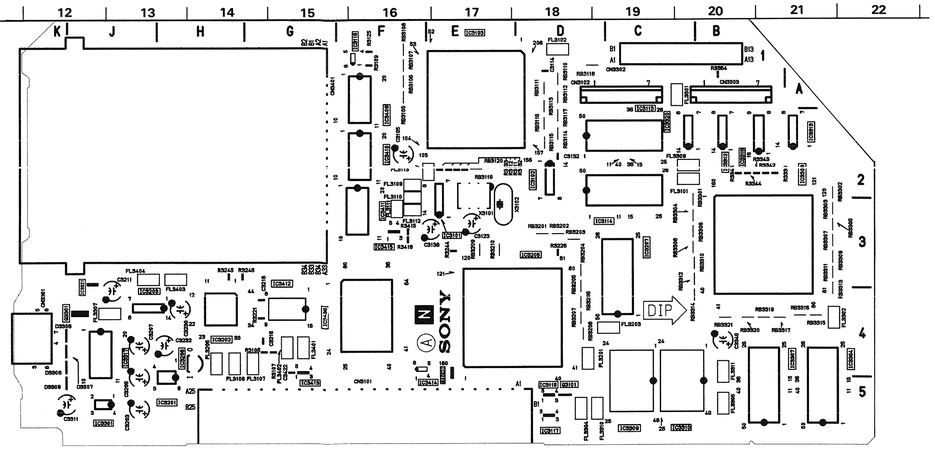


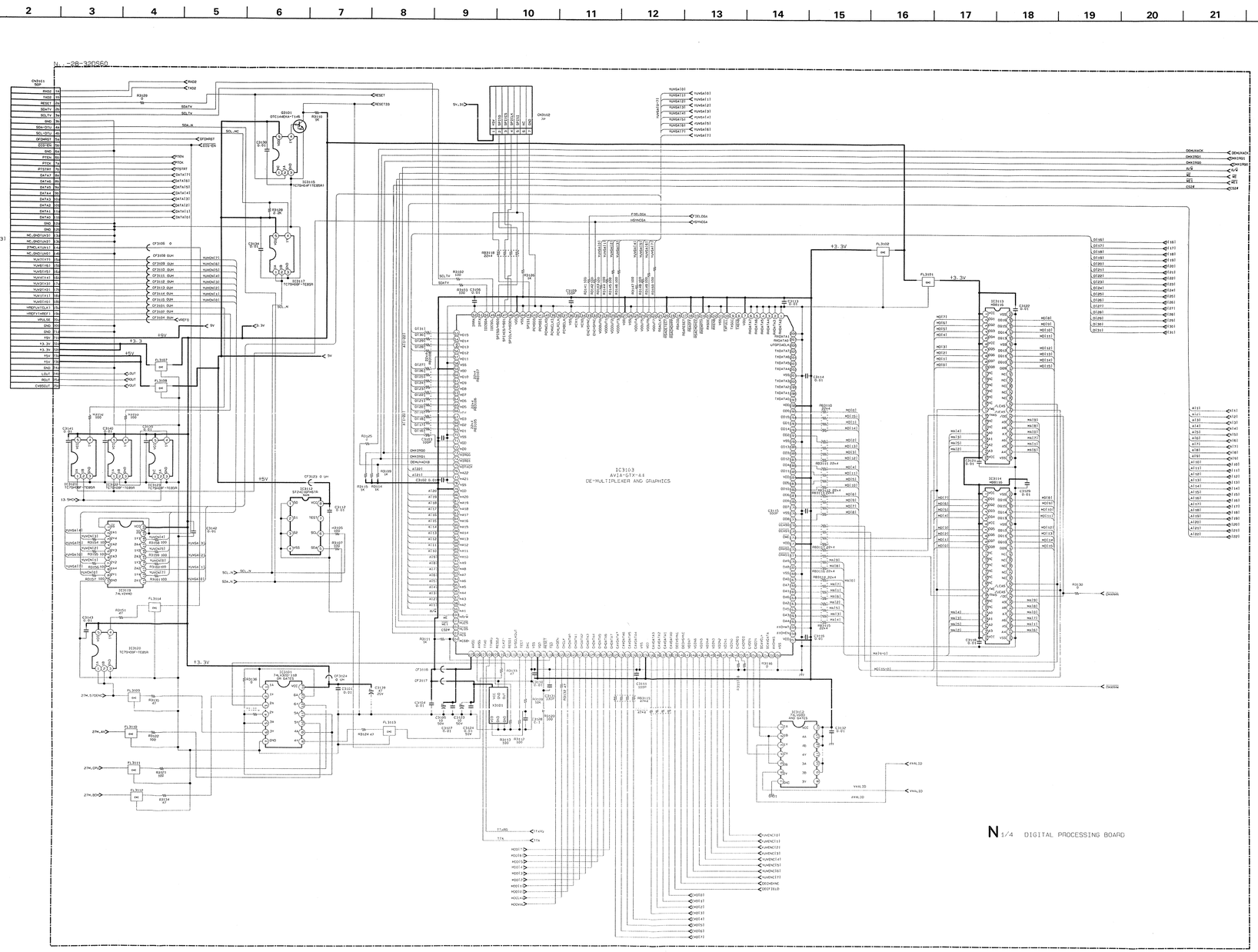
N [DIGITAL PROCESSING]

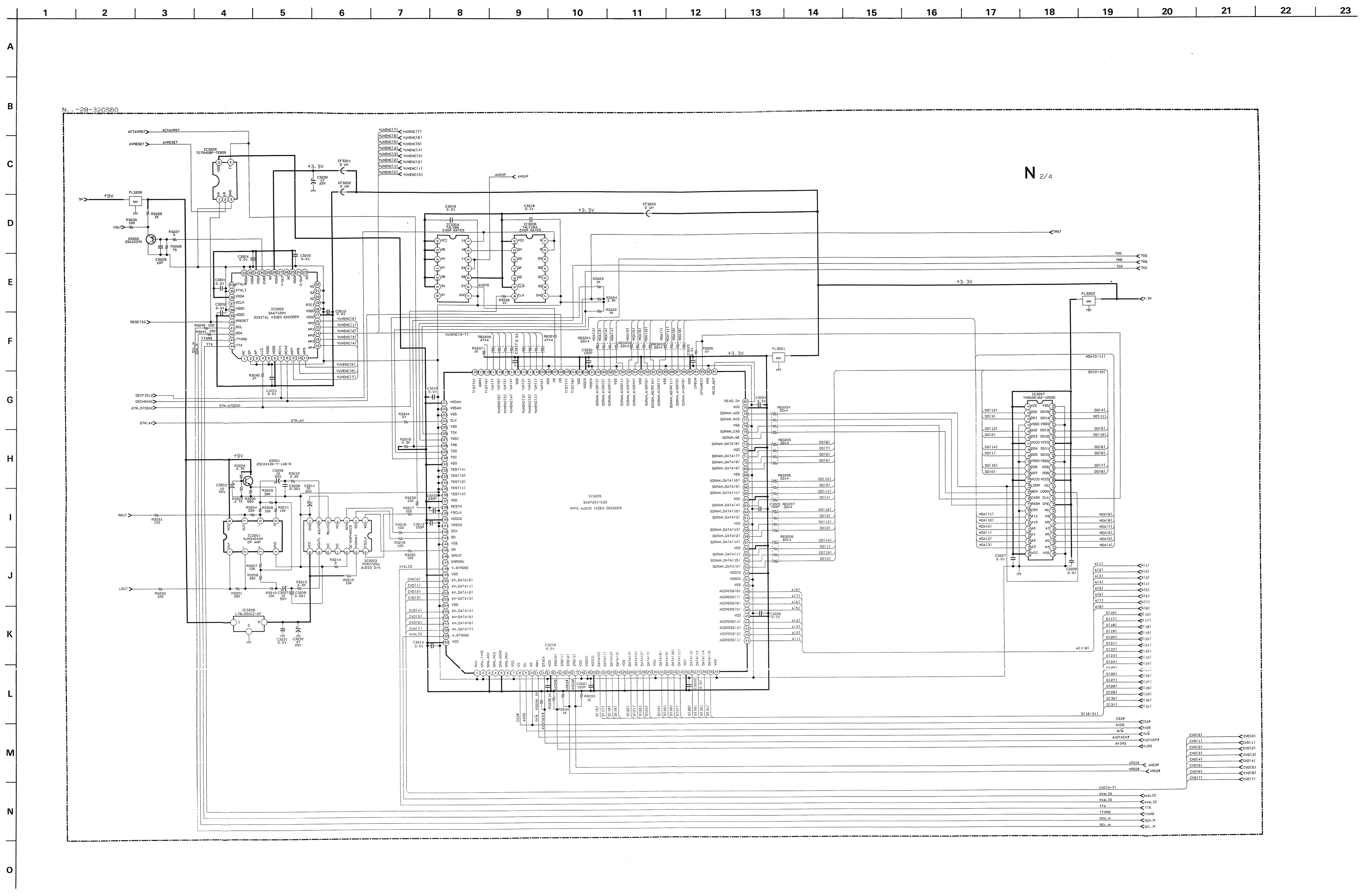
N Board <Conductor Side>

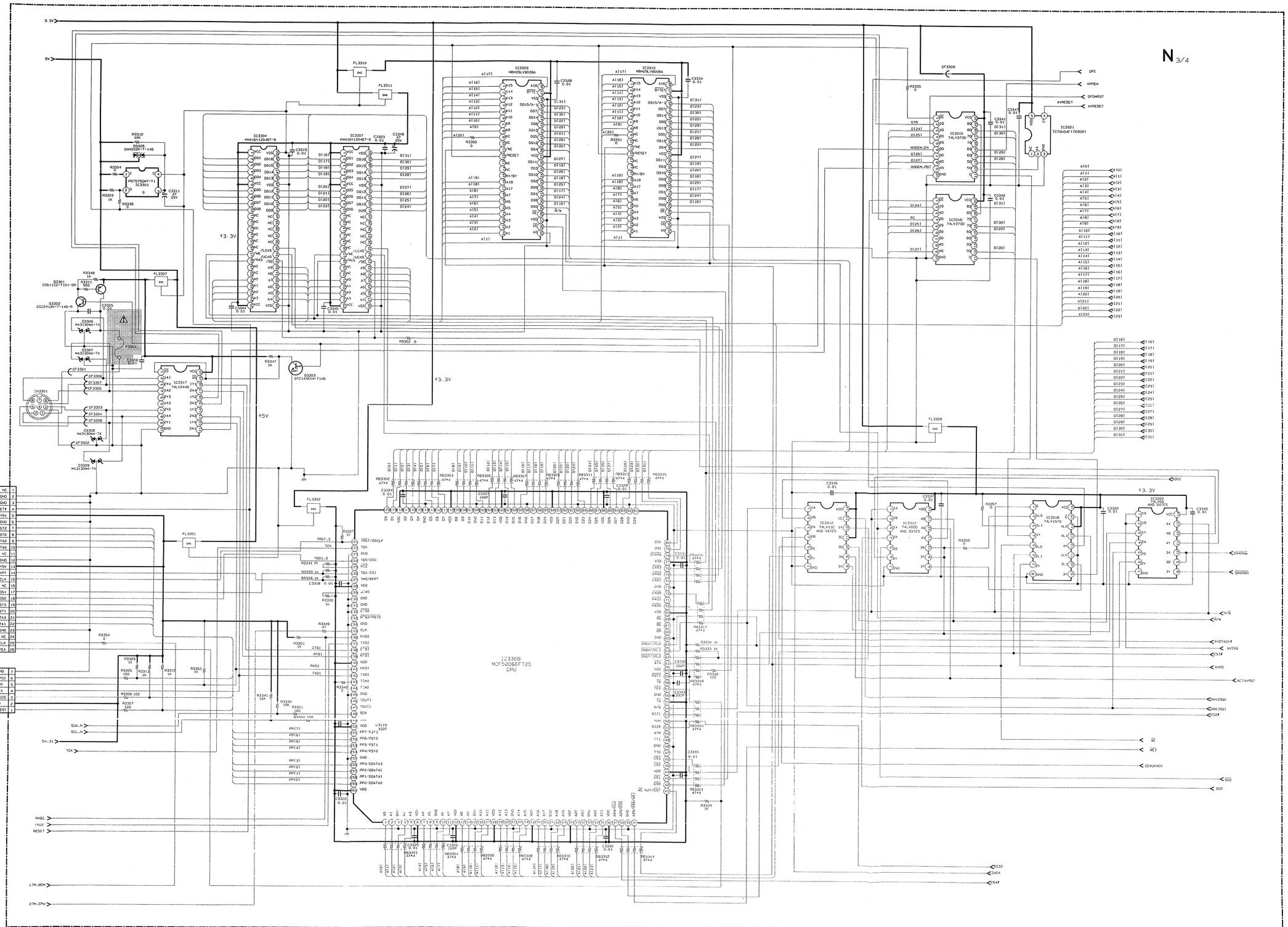


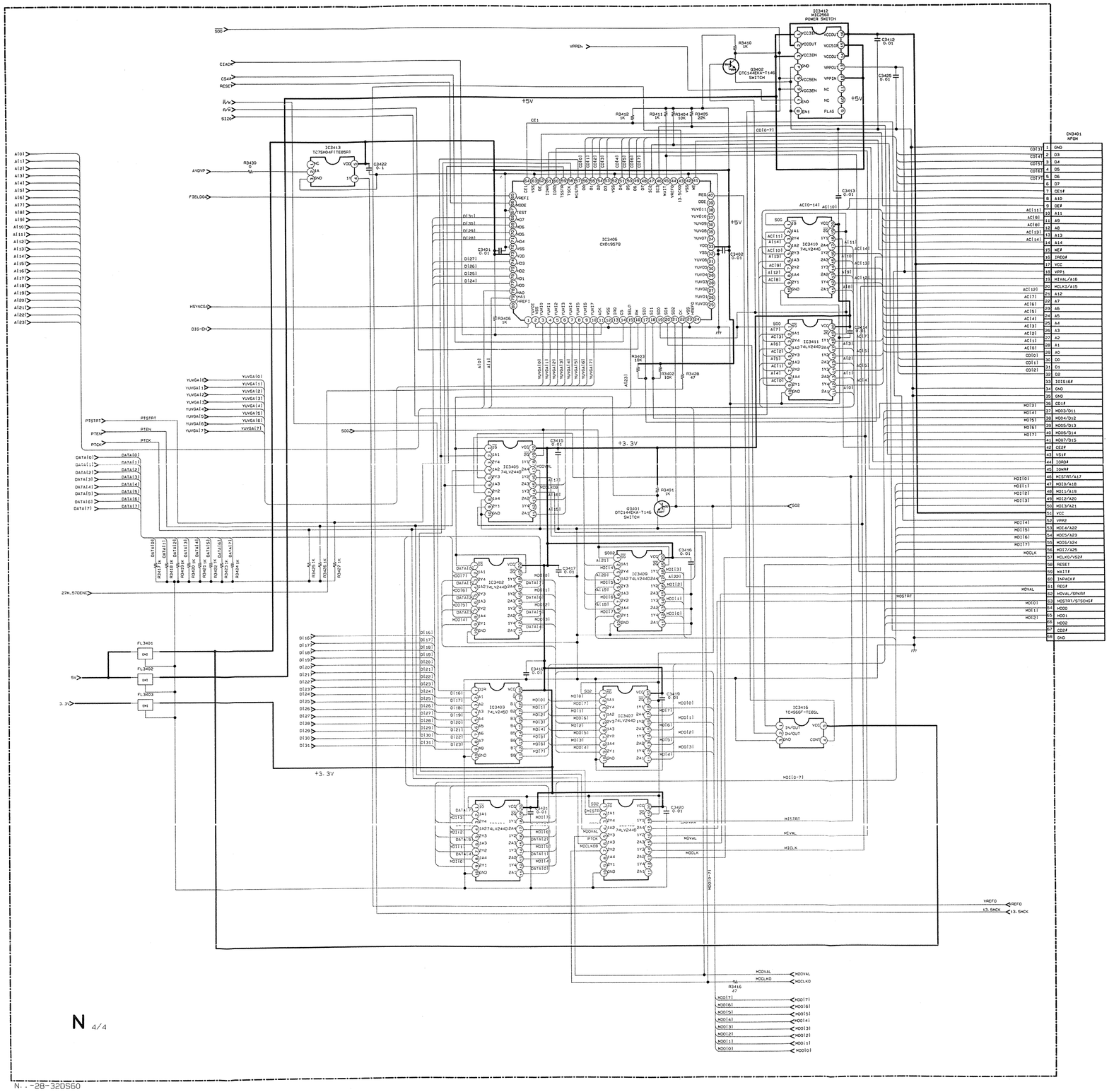
N Board <Component Side>




IC3103
AV1A-GTX-A8
DE-MULTIPLEXER AND GRAPHICS
N 1/4 DIGITAL PROCESSING BOARD
TO A BOARD(3/3) CN1805
+3.3V
+5V
+9V


N..-28-32DS60
N 2/4
IC3209 TC7SH08F-TE85R
IC3202 SAA7120H DIGITAL VIDEO ENCODER
IC3204 74LV86 EXOR GATES
IC3206 74LV164 EXOR GATES
IC3205 SAA7201-C2D MPFG AUDIO VIDEO DECODER
IC3207 TMS626162-12DGE
IC3201 NJM3404AM OP AMP
IC3203 PCM1725U AUDIO D/A
IC3208 L78L05ACZ-AP
Q3201 2SC2412K-T-146-R
Q3202 2SA1037K
FL3206
FL3201
FL3203
+9V
+3.3V
ACTAVRST
AVRESET
VOUT
RESET33
DECFIELD
DECHSYNC
27M_57DENC
27M_AV
ROUT
LOUT
AVDVP
TRST
TDO
TMS
TCK
CS3#
AVDS
R/W
AVDTACK#
AVIRQ
AREQ#
VREQ#
AVALID
VVALID
TTX
TTXRQ
SDA_N
SCL_N

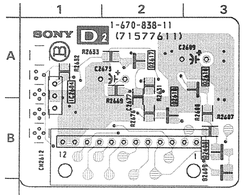

N 3/4
IC3309 HM4M28LY8008A
IC3310 HM4M28LY8008A
IC3304 KM416V1204BT-6
IC3307 KM416V1204BT-6
IC3308 MCF5206EFT25 CPU
IC3315 74LV373D
IC3316 74LV373D
IC3317 74LV244D
IC3312 74LV11C AND GATES
IC3313 74LVDD0 AND GATES
IC3318 74LV157D
IC3320 74LV08 AND GATES
IC3321 TC7SH04FTE85R
IC3301 PST575QWT-T1
D3305 DAN202K-T-146
D3302 2SC2412K-T-146-R
D3303 DTC144EKA-T146
D3306 MA3130A4-TX
D3307 MA3130A4-TX
D3308 MA3130A4-TX
D3309 MA3130A4-TX
D3311 2S6113F-T101-GR
CN3302 26P
CN3303 7P
FL3301
FL3302
FL3307
FL3309
FL3310
FL3311
3.3V
5V
+3.3V
+5V
TRST_3
TCK
TDO_3
TDI_3
TMS/BKPT
TRST/OSCLK
TDO/OSO
TDI/OSI
PP7/PST3
PP6/PST2
PP5/PST1
PP4/PST0
PP3/DDATA3
PP2/DDATA2
PP1/DDATA1
PP0/DDATA0
SDA_N
SCL_N
RXD2
TXD2
RESET
27M_BDH
27M_CPU
GP1
VPPEN
QFDMRST
AVRESET
HODEM_EN
HODEM_RST
CMXIRQ0
CMXIRQ1
AVDTACK#
AVIRQ
AVDS
ACTAVRST
DEMUXACK
N..-28-32FS60



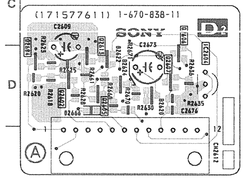
CD[3]	1	GND
CD[4]	2	D3
CD[5]	3	D4
CD[6]	4	D5
CD[7]	5	D6
	6	D7
	7	CE1#
	8	A10
	9	OE#
AC[11]	10	A11
AC[9]	11	A9
AC[8]	12	A8
AC[13]	13	A13
AC[14]	14	A14
	15	WE#
	16	IREQ#
	17	VCC
	18	VPP1
	19	HIHAL/A16
	20	MCLK1/A15
AC[12]	21	A12
AC[7]	22	A7
AC[6]	23	A6
AC[5]	24	A5
AC[4]	25	A4
AC[3]	26	A3
AC[2]	27	A2
AC[1]	28	A1
AC[0]	29	A0
CD[0]	30	D0
CD[1]	31	D1
CD[2]	32	D2
	33	IOIS16#
	34	GND
	35	GND
MD[3]	36	CD1#
MD[4]	37	MDD3/D11
MD[5]	38	MDD4/D12
MD[6]	39	MDD5/D13
MD[7]	40	MDD6/D14
	41	MDD7/D15
	42	CE2#
	43	VS1#
	44	IORD#
	45	IOWR#
MDI[0]	46	MIDIRT/A17
MDI[1]	47	MDID/A18
MDI[2]	48	MDI1/A19
MDI[3]	49	MDI2/A20
	50	MDI3/A21
	51	VCC
	52	VPP2
MDI[4]	53	MDI4/A22
MDI[5]	54	MDI5/A23
MDI[6]	55	MDI6/A24
MDI[7]	56	MDI7/A25
MDCLK	57	MCLKO/VS2#
	58	RESET
	59	WAIT#
	60	INPACK#
	61	REG#
MDVAL	62	MDVAL/SPKR#
	63	MDSTRT/STSCHG#
MDT[0]	64	MDD0
MDT[1]	65	MDD1
MDT[2]	66	MDD2
	67	CD2#
	68	GND

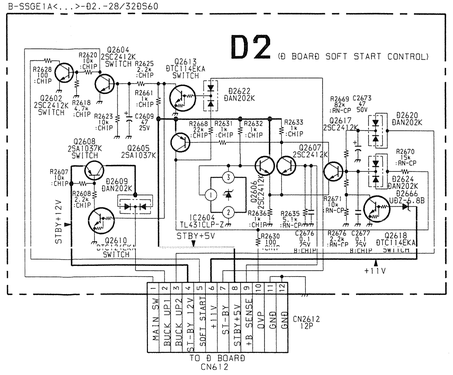
D2 [SOFT START CONTROL]

D2 Board <Conductor Side>

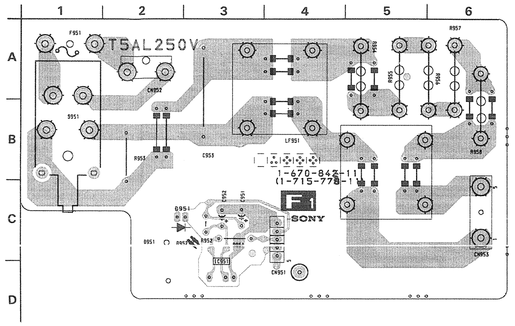


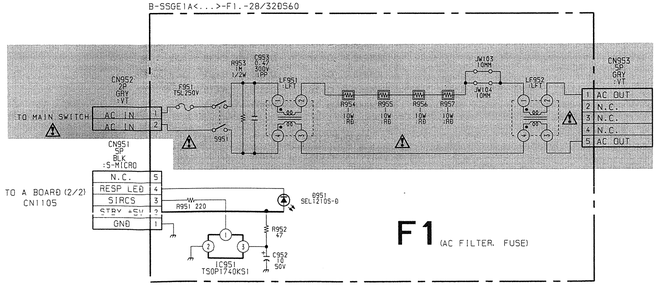
D2 Board <Component Side>





F1 [AC FILTER FUSE]





D1 BOARD

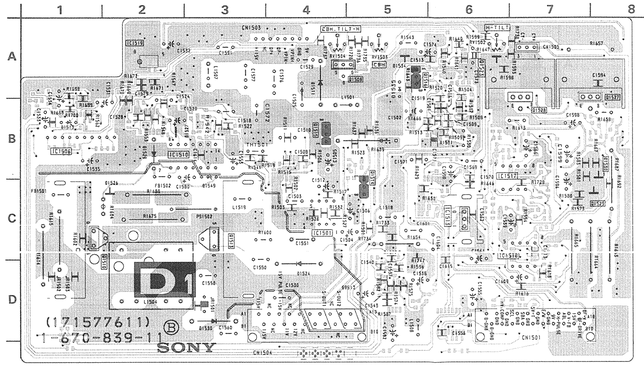
IC	
IC1501	D - 19
IC1502	C - 19
IC1503	C - 19
IC1504	A - 17
IC1505	B - 22
IC1507	B - 22
IC1508	E - 18
IC1510	B - 20
IC1511	E - 17
IC1513	D - 17
IC1515	C - 17
IC1517	C - 16
IC1518	D - 16
IC1519	A - 2

TRANSISTOR	
Q1501	A - 16
Q1502	C - 18
Q1503	B - 20
Q1504	B - 21
Q1505	B - 17
Q1506	A - 17
Q1507	B - 21
Q1508	B - 5
Q1509	B - 23
Q1510	D - 22
Q1513	D - 21
Q1514	C - 18
Q1515	B - 5
Q1516	C - 6
Q1522	E - 23
Q1523	A - 7
Q1524	B - 16
Q1526	C - 15
Q1527	B - 9
Q1528	B - 16
Q1529	C - 9
Q1530	C - 9
Q1531	C - 16

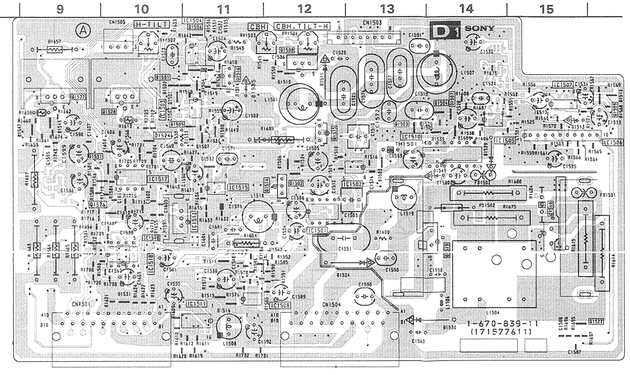
DIODE	
D1502	B - 17
D1503	C - 20
D1504	B - 17
D1506	C - 18
D1509	B - 21
D1510	A - 18
D1511	A - 19
D1512	B - 23
D1513	B - 23
D1514	D - 17
D1515	E - 17
D1516	E - 17
D1524	D - 19
D1526	C - 2
D1529	C - 21
D1530	E - 3
D1531	E - 16
D1532	C - 17
D1535	B - 18
D1546	C - 16
D1547	B - 14
D1548	B - 15
D1549	C - 21

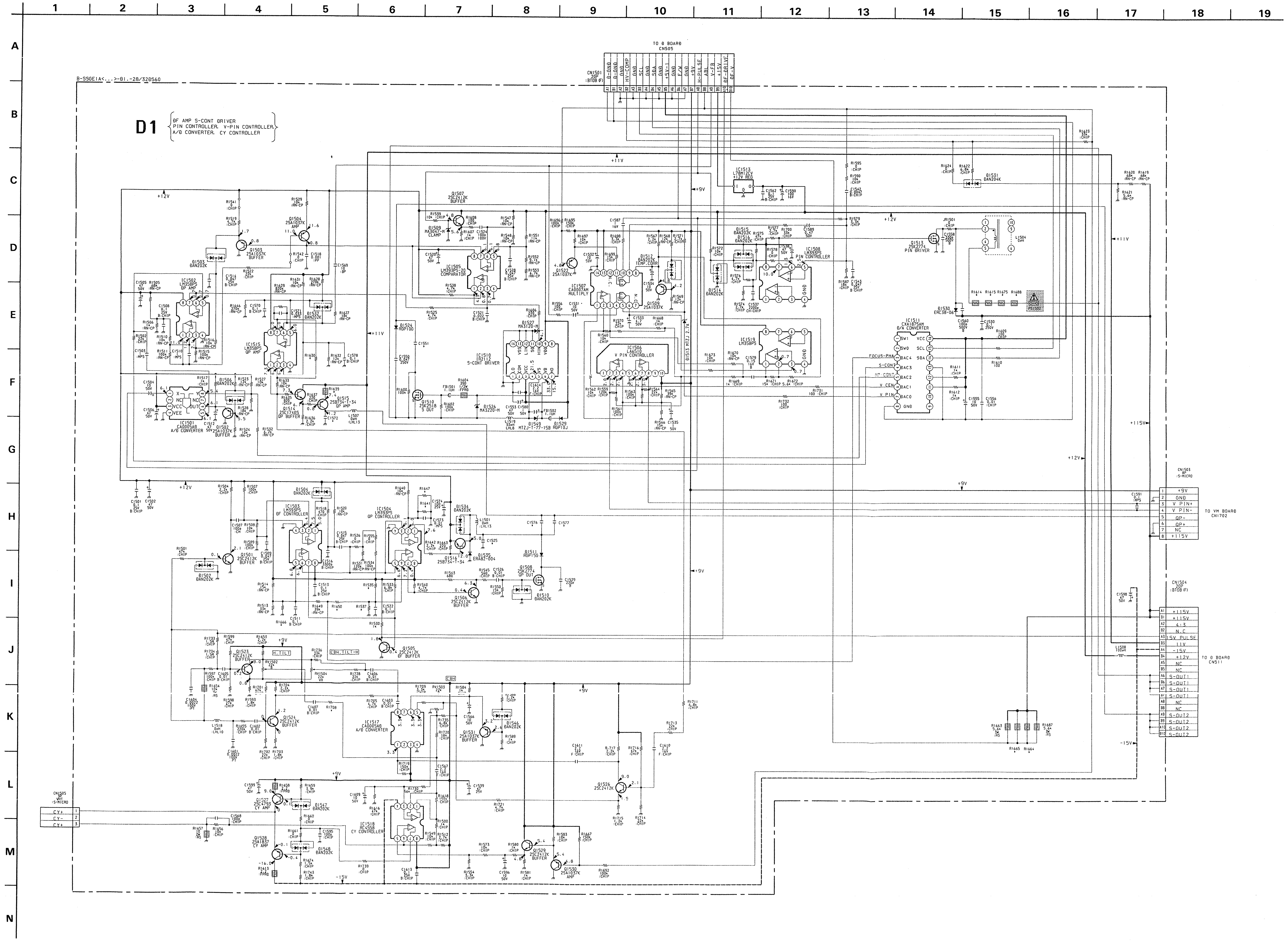
D1 DF AMP/S-CONT DRIVER
PIN CONTROLLER/AD CONVERTER
CV CONTROLLER

D1 Board <Component Side>



D1 Board <Conductor Side>



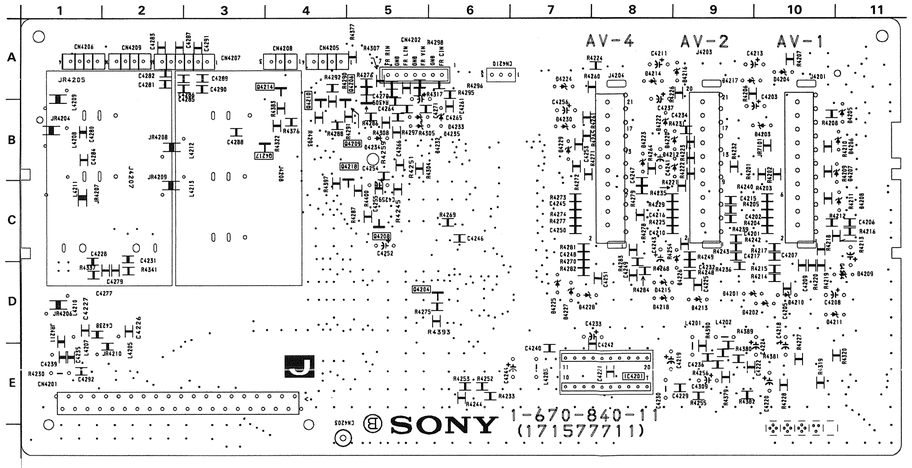

D1
ĐF AMP S-CONT ĐRIVER
PIN CONTROLLER, V-PIN CONTROLLER,
A/Đ CONVERTER, CY CONTROLLER
B-SSGE1A<...>-Đ1.-28/32DS60
TO Đ BOARD
CN505
CN1501 20P :BTOB (F)
Đ-GNĐ
Đ-GNĐ
GNĐ
HV-COMP
GNĐ
SCL
GNĐ
SĐA
GNĐ
+5V-1
GNĐ
E/W
GNĐ
+9V
H-PULSE
ABL
V-FB
+15V
ĐF-ĐRIVE
ĐF-V
IC1501 CA0005AĐ A/Đ CONVERTER
IC1502 LM358PS ĐP AMP
IC1503 LM393PS ĐF CONTROLLER
IC1504 LM393PS QP CONTROLLER
IC1505 LM393PS-20 COMPARATOR
IC1506 LA6510 V PIN CONTROLLER
IC1507 CA0007AM MULTIPLY
IC1508 LM393PS PIN CONTROLLER
IC1510 IR2112 S-CONT ĐRIVER
IC1511 CXA1875AM Đ/A CONVERTER
IC1513 L78M12CV +12V REG
IC1515 LM358PS QP AMP
IC1517 CA0005AĐ A/Đ CONVERTER
IC1518 RC4558 CY CONTROLLER
IC1519 LM358PS
CN1503 8P :S-MICRO
+9V
GNĐ
V PIN+
V PIN-
QP-
QP+
NC
+115V
TO VM BOARĐ CN1702
CN1504 20P :BTOB (F)
+115V
+115V
4:3
N.C
15V PULSE
11V
-15V
+12V
NC
NC
S-OUT1
S-OUT1
S-OUT1
S-OUT1
NC
NC
S-OUT2
S-OUT2
S-OUT2
S-OUT2
TO Đ BOARĐ CN511
CN1505 3P WHT :S-MICRO
CY+
CY-
CY+

D1 BOARD * MARK

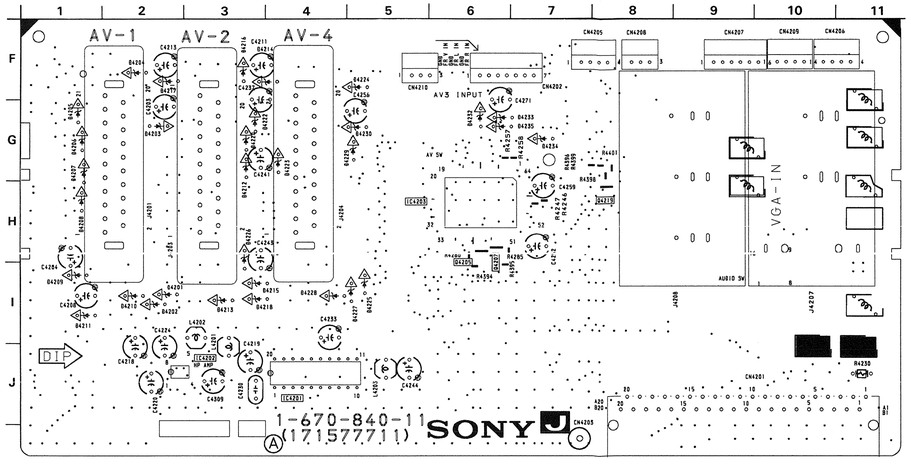
Ref	28DS60U	32DS60U
C1525	0.0015MF	0.0047MF
C1551	0.33MF	0.43MF
C1572	1MF	0.1MF
C1576	0.0022MF	0.0015MF
C1577	-	0.0047MF
R1535	15K	12K
R1537	22K	27K
R1614	2.7	0
R1615	2.7	0
R1630	8.2K	6.8K
R1639	100	82
R1641	12K	10K
R1647	-	220K
R1650	36K	39K
R1664	6.8K	5.6K
R1665	6.8K	5.6K
R1666	-	270K
R1675	2.7	0
R1688	2.7	0
R1708	150K	220K

J [AV INPUT INTERFACE/AUTO SELECTOR/ H.P AMP/AUDIO SWITCH]

J Board <Conductor Side>

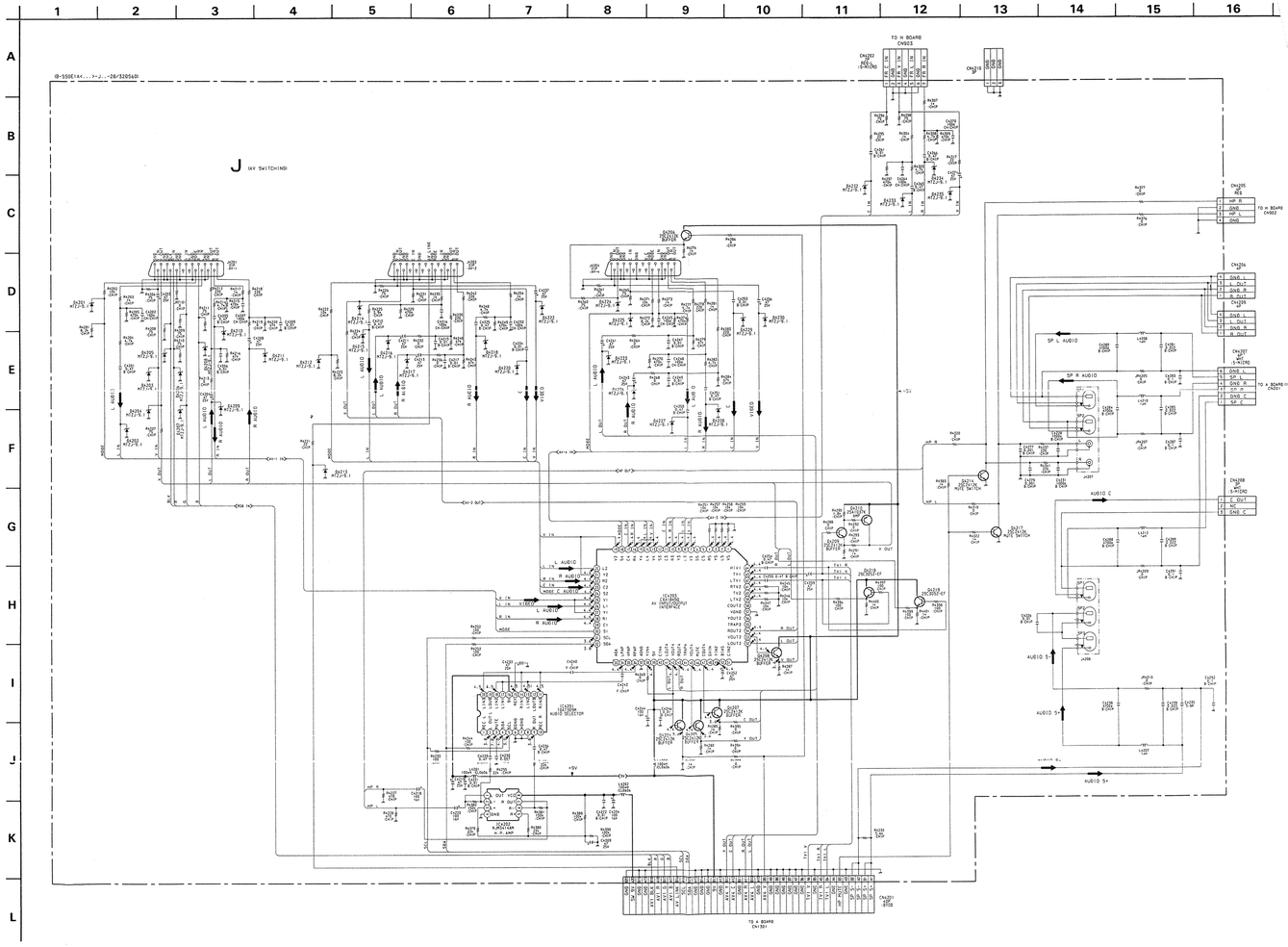


J Board <Component Side>

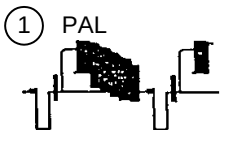


J BOARD

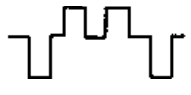
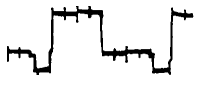
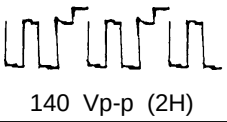
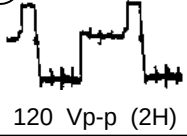
IC		D4209	D - 11
IC4201	J - 4	D4210	I - 2
IC4202	J - 3	D4211	J - 1
IC4203	H - 6	D4212	H - 3
TRANSISTOR		D4213	D - 9
Q4204	D - 6	D4214	G - 3
Q4205	I - 6	D4215	D - 8
Q4206	A - 5	D4216	F - 3
Q4207	I - 6	D4217	G - 2
Q4208	C - 5	D4218	D - 8
Q4209	B - 5	D4220	G - 3
Q4210	A - 4	D4222	G - 3
Q4214	A - 4	D4223	H - 4
Q4217	B - 4	D4224	G - 4
DIODE		D4225	D - 7
D4201	D - 10	D4227	D - 7
D4202	D - 10	D4228	D - 8
D4203	G - 2	D4229	G - 5
D4204	A - 10	D4230	G - 4
D4205	B - 11	D4232	G - 6
D4206	B - 11	D4233	G - 6
D4207	H - 1	D4234	G - 7
D4208	C - 11	D4235	G - 6



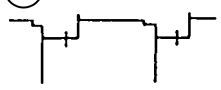
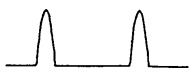
WAVEFORMS A BOARD (1/3)

① PAL  1.0 Vp-p (H)	① SECAM 1.0 Vp-p (H)	② 4.6 Vp-p (V)

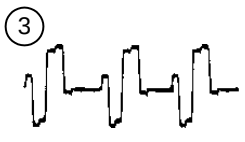
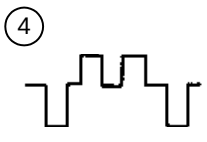
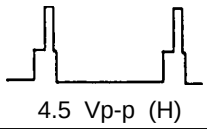
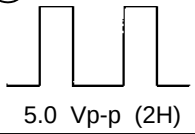
WAVEFORMS C BOARD

①  5.0 Vp-p (2H)	②  4.5 Vp-p (2H)	③ 4.5 Vp-p (2H)
④  140 Vp-p (2H)	⑤  120 Vp-p (2H)	⑥ 130 Vp-p (2H)
⑦ 25 Vp-p (2H)		

WAVEFORMS D BOARD

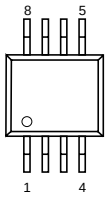
① 7.0 Vp-p (2H)	② 154 Vp-p (2H)	③  10 Vp-p (2H)
④  1.2K Vp-p (2H)	⑤ 60 Vp-p (2H)	⑥ 98 Vp-p (2H)

WAVEFORMS A BOARD (2/3)

① PAL 0.8 Vp-p (2H)	① SECAM 1.0 Vp-p (2H)	② 0.6 Vp-p (2H)
③  0.6 Vp-p (2H)	④  5.0 Vp-p (2H)	⑤ 4.5 Vp-p (2H)
⑥ 4.5 Vp-p (2H)	⑦  4.5 Vp-p (H)	⑧  5.0 Vp-p (2H)
⑨ 95 Vp-p (2H)		

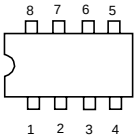
5-4 SEMICONDUCTORS

BA7046F
BA7046F-T1
MB3793-42NF
MB3793-42NF-ER
MC14066BFEL
NJM2240M
NJM2240M(TE2)
NJM3404AM-TE1

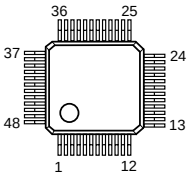


(TOP VIEW)

CAD005AD
LM358N
LM358PS
LM393P
M5216P
ST24C16FB6
TDA2822M
UPC393C

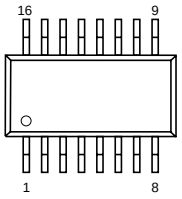


CXA1855Q-T6



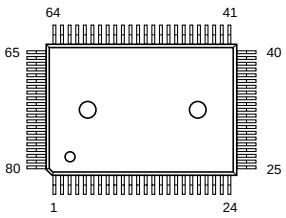
(TOP VIEW)

CXA1875AM-T4
HEF4053BT
MC14052BDR2
MC14053BF-T2
MC74F157ADR2
SN74LS221D
74HCT4046AD/S470



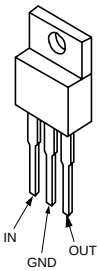
(TOP VIEW)

CXD2044Q-TL
SAA4990H/V2

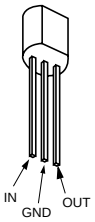


(MARKING SIDE VIEW)

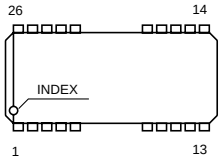
L7805CV
LM2940CT-9.0
LM2940T-8.0
LM2940T-9.0
L4941BV
TEA7605
MC7808CT



LM78L05ACZ
LM78L12ACZ
L78L05ACZ-AP
L78L12ACZ-AP
MC78LO5AC PRP

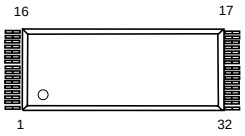


MB814400C-70P-JN-ER



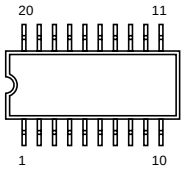
(TOP VIEW)

MBM29F04DA-90PFN



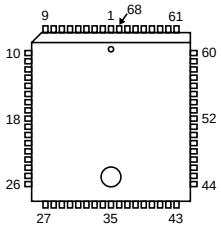
(TOP VIEW)

MC74F240DWR2
MC74F244MEL



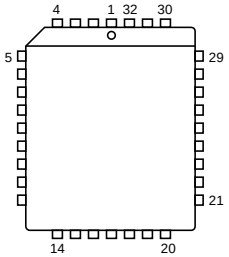
(TOP VIEW)

MSP3400C-PS-C6-T
MSP3410D-PS-B4-T
SAA7185WP
SDA30C164-2-GEG
SDA30C164-2GEG
SDA5273P-C26-GEG
SDA5275
SDA9280B22



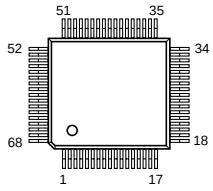
(TOP VIEW)

M27C4001-15C1
M27C4001-15C1-GE101



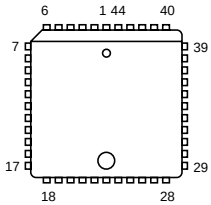
(TOP VIEW)

P83C654EBA/582
SDA9280A41



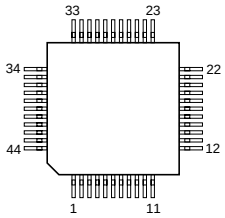
(TOP VIEW)

EPM7032LC44-15-AE001
SAA4952WP/V1
SAA7165WP

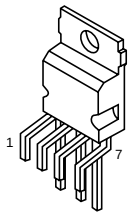


(TOP VIEW)

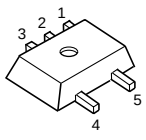
SDA9361



STV9379



TC4S66F
TC4S66F-TE85L



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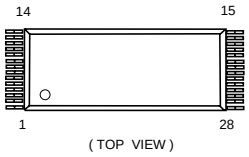

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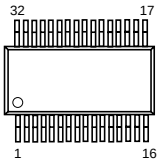

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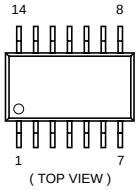
U2860B-BFPG3
74LVC08D



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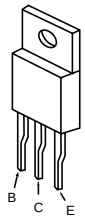
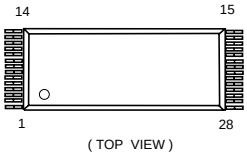


TDA4665T-T



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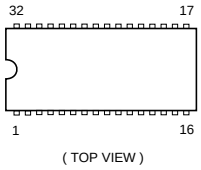
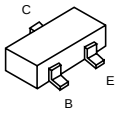
TDA9144/N1
TDA9170T



DTA114EK
DTA114EK-T146
DTA144EK
DTA144EK-T146
DTC114EK
DTC114EKA-T146
DTC124EKA-T146

DTC144EK
DTC144EK-T146
DTC144EKA-T146
2SA1037K-T-146-R
2SA1162-G
2SC2412K-QR
2SC2412K-T-146-R



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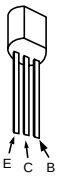
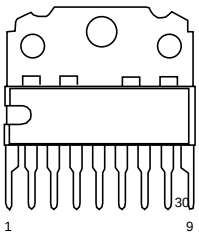
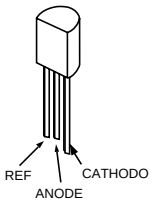
2SC2552O-TPE2



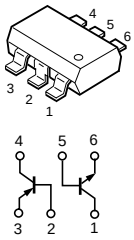
TDA6111Q
TDA6111Q/N4



TL431CLP
TL431CLP-Z20
TL431CPS-T1
TL431CZ



IMZ1A-T109



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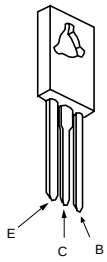

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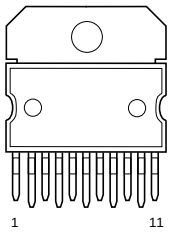

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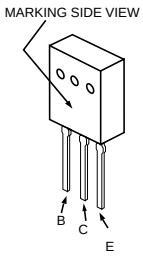

JA101TP-Q
JC501TP-Q
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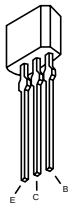
DTA144ESA-TP
DTC144ESA-TP
2SA1175-HFE

2SA733-K
2SA933AS-RT
2SA933AS-RT
2SA933S-RT
2SC1740S-RT
2SC2785-HFE



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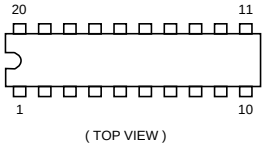

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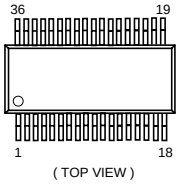
TMS4C2972-28DTR



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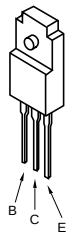

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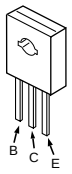
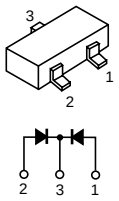


DAN202K
DAN202K-T-146



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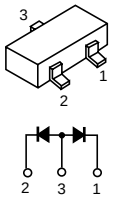
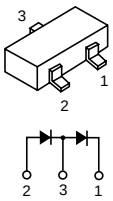
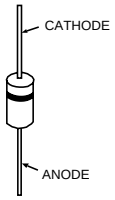
DAP202K-T-146



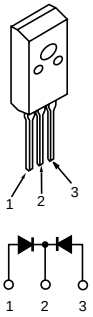
DA204K
DA204K-T-146



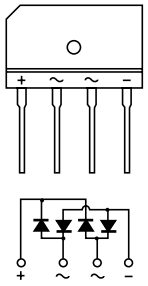
D1NL20
D1NL20-TA
D1NL20-TR
EGP20G
EL1Z
GP08D
GP08DPKG23
MTZJ-T-77-9.1
MTZJ-T-77-9.1A
R2K-V1
RGP02-20EG23
RGP02-20EL-6394
RGP10GPKG23
RGP15GPKG23
S2LA20F
1SS133T-77
1SS83
1SS83TD



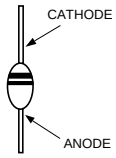
D10SC4M-F



D4SB60L
D4SB60L-F
RBA-402L



ERC38-06



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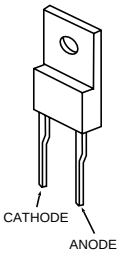
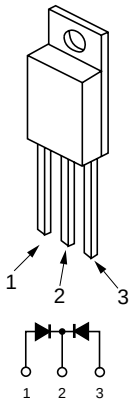
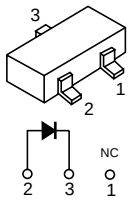


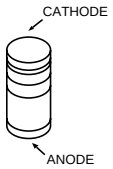
ESAD39M-06C
ESAD39M-06CF38



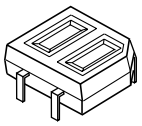
MA3033-L
MA3033L-TX
MA3056M-TX
MA3130WA-TX
02CZ5.6-TEBSL
02CZ5.1-TEBSL
MA3062M-TX
MA3030-H(TX)
RD5.6M-B2



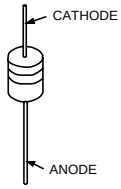
MA3051L-TX



MA73-TX



ERA38-06TP1
MTZJ-T-77-1OC
MTZJ-T-77-13B
MTZJ-T-77-15B
MTZJ-T-77-2.2A
MTZJ-T-77-33C
MTZJ-T-77-39C
MTZJ-T-77-5.6A
MTZJ-T-77-5.6B
MTJ-T-77-9.1
MTZJ-13B
MTZJ-33C
MTZJ-39C
RD15ES-B2
RD5.6ESB2
RD9.1ESB2
1SS119-25
1SS119-25TD



MA110-TX
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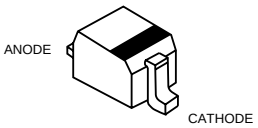
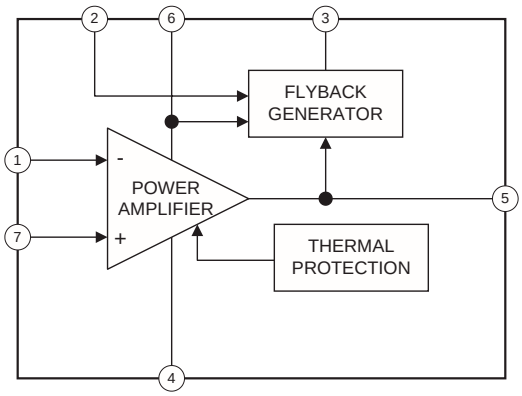
UDZ-TE-17-6.8B

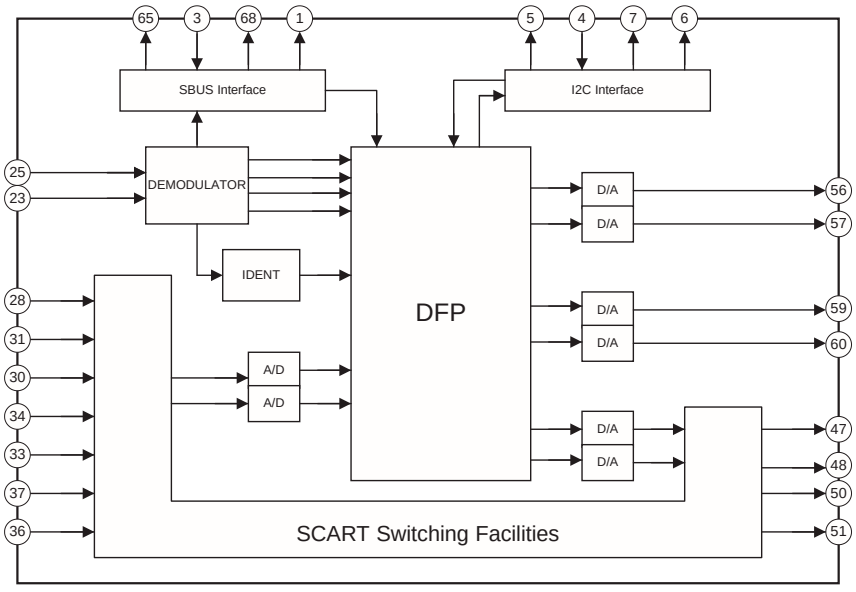


5-5. IC BLOCK DIAGRAMS

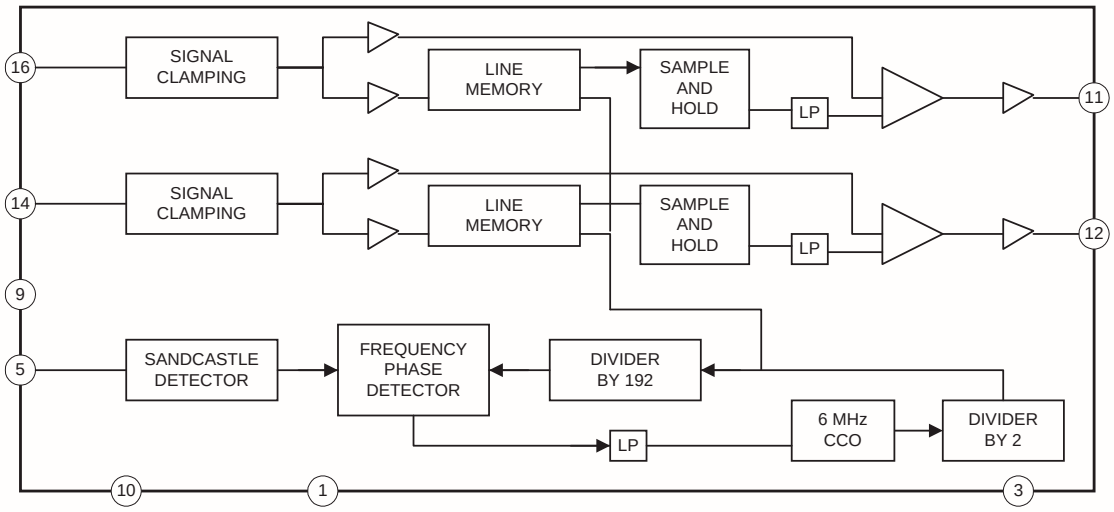
D BOARD IC502 STV9379



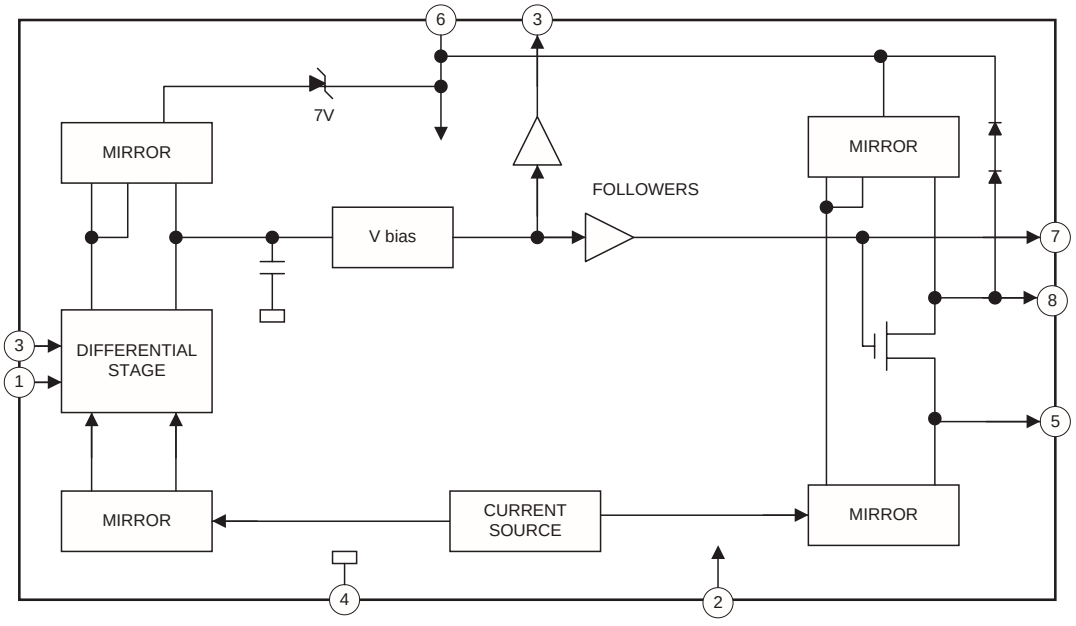
A BOARD IC201 MSP3410B-PS-B4-T



B BOARD IC3503,3602 TDA4665T-T



C BOARD IC701,702,703 TDA6111Q/N4



SECTION 6
EXPLODED VIEWS

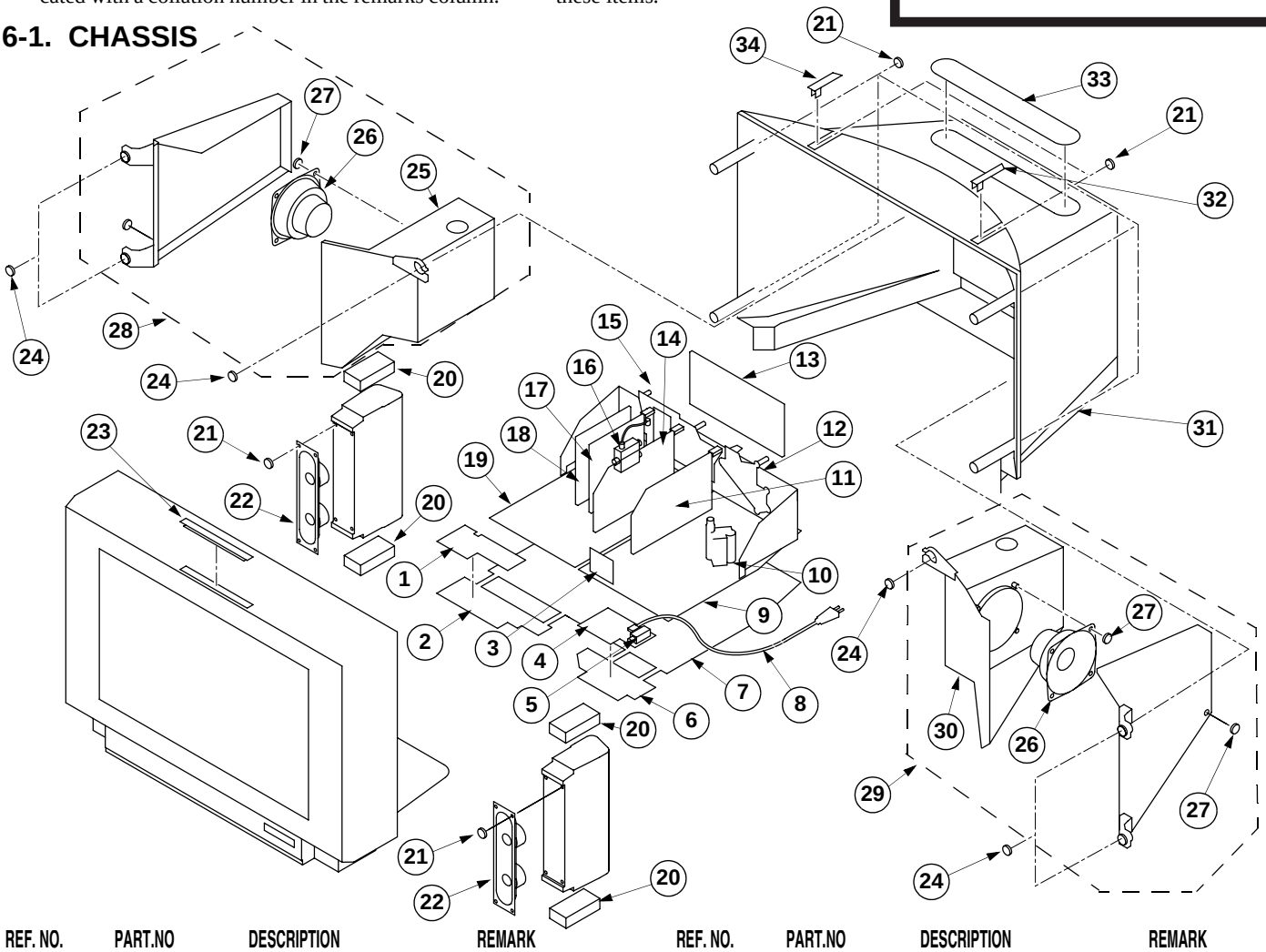
Note : Les composants indentifies par une trame et par une marque ⚠ sonte d'une importance critique pour la securite. Ne les remplacer que par des pieces du numero specifie.

Note : The components identified by shading and marked ⚠ are critical for safety. Replace only with the part numbers specified in the parts list.

NOTE :

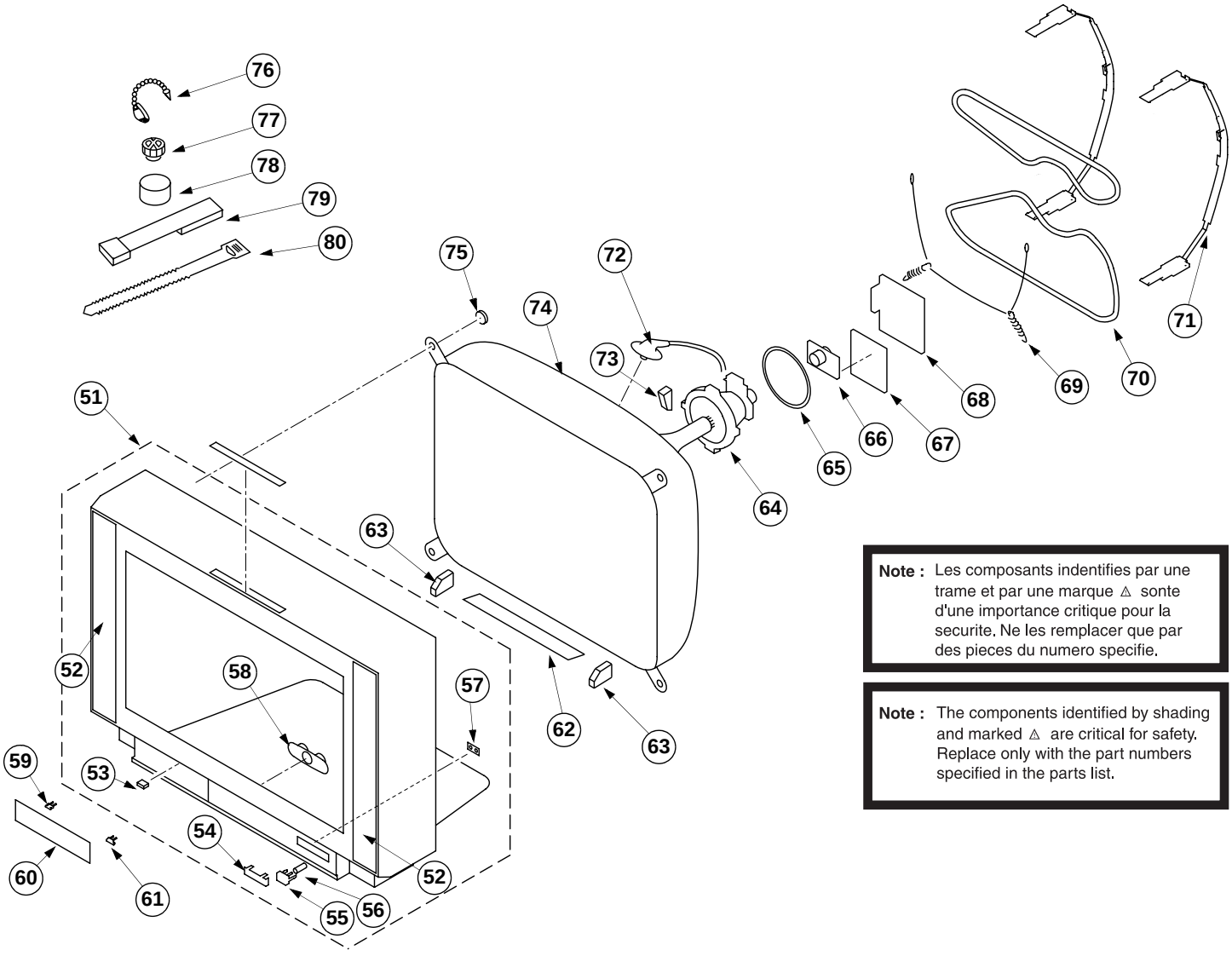
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remarks column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

6-1. CHASSIS



REF. NO.		PART.NO	DESCRIPTION	REMARK
1		*A-1646-163-A	H BOARD, COMPLETE	
2		*4-204-430-01	BRACKET, H (KV-28DS60)	
		*4-204-430-11	BRACKET, H (KV-32DS60)	
3		*A-1640-314-A	D2 BOARD, COMPLETE	
4		*A-1624-072-A	F1 BOARD, COMPLETE	
5	⚠	1-571-433-21	SWITCH, PUSH (AC POWER)	
6		*4-204-431-01	BRACKET, F (KV-28DS60)	
		*4-204-431-11	BRACKET, F (KV-32DS60)	
7		*4-203-784-11	BRACKET, MAIN	
8	⚠	1-776-204-11	CORD, POWER (FILTER)	
9		*A-1642-236-A	D BOARD, COMPLETE (KV-28DS60)	
		*A-1642-237-A	D BOARD, COMPLETE (KV-32DS60)	
10	⚠	X-4560-138-1	TRANSFORMER ASSY, FLYBACK NX-4602/J1B4	
11		*A-1642-326-A	D1 BOARD, COMPLETE (KV-28DS60)	
		*A-1642-327-A	D1 BOARD, COMPLETE (KV-32DS60)	
12		*4-203-829-02	HOLDER (A), J	
13		*A-1651-096-A	J BOARD, COMPLETE	
14		*A-1620-110-A	B BOARD, COMPLETE	
15		*4-204-432-01	BRACKET, J	
16		1-693-339-21	TUNER/VIF (UK)	
17		*A-1654-030-A	N BOARD, COMPLETE	
18		*A-1632-771-A	A1 BOARD, COMPLETE	
19		*A-1632-770-A	A BOARD, COMPLETE	
20		*4-202-988-01	CUSHION, BOX	
21		4-039-358-01	SCREW (4X16), (+) BV TAPPING	
22		1-529-153-11	SPEAKER (4.8X20CM)	
23		1-771-599-11	SWITCH ARRAY	
24		4-384-096-01	SCREW (4X16), TAPPING	
25		1-529-144-11	WOOFER (L) ASSY, SP FX	
26		1-529-144-11	SPEAKER (13CM)	
27		4-039-355-11	SCREW (4X12), (+) BV TAPPING	
28		*A-1678-150-A	WOOFER (L) ASSY	25,26,27
29		*A-1678-188-A	WOOFER (R) ASSY	26,27,30
30		1-529-158-11	WOOFER (R) ASSY, SP FX	
31		4-204-459-01	COVER, REAR (KV-28DS60)	
		4-204-387-01	COVER, REAR (KV032DS60)	
32		4-204-427-01	COVER, SCREW (L) (KV-28DS60)	
		4-204-369-01	COVER, SCREW (L) (KV-32DS60)	
33		*4-204-458-01	COVER, PORT	
34		4-204-428-01	COVER, SCREW (R) (KV-28DS60)	
		4-204-370-01	COVER, SCREW (R) (KV-32DS60)	

6-2. PICTURE TUBE



Note : Les composants indentifies par une trame et par une marque ⚠ sonte d'une importance critique pour la securite. Ne les remplacer que par des pieces du numero specifie.

Note : The components identified by shading and marked ⚠ are critical for safety. Replace only with the part numbers specified in the parts list.

REF. NO.		PART.NO	DESCRIPTION	REMARK
51		X-4200-417-1	BEZNET ASSY (KV-28DS60)	52-58
		X-0517-134-0	BEZNET ASSY (KV-32DS60)	
52		4-204-450-01	GRILLE, SPEAKER (KV-28DS60)	
		4-204-368-01	GRILLE, SPEAKER (KV-32DS60)	
53		4-042-192-01	CATCHER, PUSH	
54		4-204-492-01	WINDOW, ORNAMENTAL	
55		4-204-438-01	BUTTON, POWER	
56		4-202-964-11	SPRING	
57		4-204-439-01	GUIDE, LIGHT	
58		1-529-143-11	SPEAKER (4.2 X 20CM)	
59		4-202-555-01	SHAFT, DOOR	
60		4-204-435-51	DOOR	
61		4-045-250-01	DAMPER	
62		4-203-128-31	SHEET, BLOTTING	
63		*4-203-098-01	SUPPORTER, CRT (KV-32DS60)	
64	⚠	1-451-463-21	DEFLECTION YOKE Y28RCV (KV-28DS60)	
	⚠	1-451-462-21	DEFLECTION YOKE Y32RVC (KV-32DS60)	
65		1-452-896-11	COIL, NA ROTATION (RT200)	
66	⚠	8-453-015-11	NECK ASSY, (NA2913-M)	
67		*A-1644-092-A	VM BOARD, COMPLETE	
68		*A-1638-114-A	C BOARD, COMPLETE	
69		4-200-433-01	SPRING, EXTENSION (KV-28DS60)	
		4-369-318-31	SPRING, TENSION (KV-32DS60)	
70	⚠	1-416-466-11	COIL, DEMAGNETIC (KV-28FD60)	
	⚠	1-416-769-11	COIL, DEMAGNETIC (KV-32DS60)	

REF. NO.		PART.NO	DESCRIPTION	REMARK
71		*4-057-303-03	HOLDER, DGC (KV-28DS60)	
		*4-059-569-01	HOLDER, DGC (KV-32DS60)	
72	⚠	1-251-317-31	CAP ASSY, HIGH-VOLTAGE	
73		3-704-495-01	SPACER, DY	
74	⚠	8-737-785-05	PICTURE TUBE (W66LLX101X) (KV-28DS60)	
	⚠	8-735-044-05	PICTURE TUBE (W76LLZ010X) (KV-32DS60)	
75		4-036-188-01	SCREW, SELF TAPPING (KV-28DS60)	
		4-204-225-01	PT-SCREW (KV-32DS60)	
76		4-308-870-00	CLIP, LEAD WIRE	
77		1-452-094-00	MAGNET, ROTATABLE DISK; 15MM	
78		4-425-032-00	MAGNET, DISK; 10MM	
79		X-4387-214-1	PERMALLOY ASSY, CORRECTION	
80		3-701-007-00	BAND, BINDING	

SECTION 7
ELECTRICAL PARTS LIST

Note : Les composants indentifies par une trame et par une marque ⚠ sonte d'une importance critique pour la securite. Ne les remplacer que par des pieces du numero specifie.

Note : The components identified by shading and marked ⚠ are critical for safety. Replace only with the part numbers specified in the parts list.

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
-
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- RESISTORS
- All resistors are in ohms.
- F : nonflammable.

When indicating parts by reference number, please include the board name.

CAPACITORS
MF : mF, PF : mmF

COILS
MMH : mH , uH

B

REF. NO.	PART.NO	DESCRIPTION			REMARK
	*A-1620-110-A	B BOARD, COMPLETE			
		**********			
		<CAPACITOR>			
C307	1-163-125-00	CERAMIC CHIP 220PF	5%	50V	
C308	1-163-259-91	CERAMIC CHIP 220PF	5%	50V	
C311	1-126-964-11	ELECT 10MF	20%	50V	
C313	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C314	1-163-125-00	CERAMIC CHIP 220PF	5%	50V	
C315	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C316	1-163-125-00	CERAMIC CHIP 220PF	5%	50V	
C317	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C319	1-126-963-11	ELECT 4.7MF	20%	50V	
C320	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C322	1-126-963-11	ELECT 4.7MF	20%	50V	
C325	1-164-489-11	CERAMIC CHIP 0.22MF	10%	16V	
C326	1-110-501-11	CERAMIC CHIP 0.33MF	10%	16V	
C329	1-163-141-00	CERAMIC CHIP 0.001MF	5%	50V	
C330	1-126-963-11	ELECT 4.7MF	20%	50V	
C336	1-162-638-11	CERAMIC CHIP 1MF		16V	
C337	1-163-989-11	CERAMIC CHIP 0.033MF	10%	25V	
C338	1-163-989-11	CERAMIC CHIP 0.033MF	10%	25V	
C339	1-164-489-11	CERAMIC CHIP 0.22MF	10%	16V	
C343	1-163-231-11	CERAMIC CHIP 15PF	5%	50V	
C349	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C350	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C352	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C355	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C356	1-126-960-11	ELECT 1MF	20%	50V	
C358	1-163-237-11	CERAMIC CHIP 27PF	5%	50V	
C360	1-163-105-00	CERAMIC CHIP 33PF	5%	50V	
C364	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C365	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C368	1-126-964-11	ELECT 10MF	20%	50V	
C370	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C371	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C372	1-107-823-11	CERAMIC CHIP 0.47MF	10%	16V	
C373	1-126-964-11	ELECT 10MF	20%	50V	
C374	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C375	1-126-961-11	ELECT 2.2MF	20%	50V	
C376	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C377	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C378	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C379	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C380	1-163-097-00	CERAMIC CHIP 15PF	5%	50V	
C381	1-163-097-00	CERAMIC CHIP 15PF	5%	50V	
C382	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C386	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C388	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C389	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C390	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C391	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C392	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C393	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C394	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C395	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C396	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C398	1-163-235-11	CERAMIC CHIP 22PF	5%	50V	
C399	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C300	1-163-241-11	CERAMIC CHIP 39PF	5%	50V	
C301	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C302	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C303	1-126-964-11	ELECT 10MF	20%	50V	
C304	1-126-964-11	ELECT 10MF	20%	50V	
C305	1-163-235-11	CERAMIC CHIP 22PF	5%	50V	
C306	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C307	1-163-241-11	CERAMIC CHIP 39PF	5%	50V	
C308	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C309	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C311	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C312	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C313	1-163-145-00	CERAMIC CHIP 0.0015MF	5%	50V	
C315	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C316	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V	
C317	1-126-933-11	ELECT 100MF	20%	16V	
C318	1-126-933-11	ELECT 100MF	20%	16V	

B

REF. NO.	PART.NO	DESCRIPTION	REMARK
C319	1-126-933-11	ELECT 100MF 20%	16V
C320	1-126-933-11	ELECT 100MF 20%	16V
C321	1-126-933-11	ELECT 100MF 20%	16V
C322	1-126-933-11	ELECT 100MF 20%	16V
C323	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C324	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C325	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C326	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C327	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C328	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C329	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C330	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C331	1-163-037-11	CERAMIC CHIP 0.022MF 10%	50V
C332	1-163-222-11	CERAMIC CHIP 5PF 0.25PF	50V
C335	1-163-001-11	CERAMIC CHIP 220PF 10%	50V
C337	1-163-021-91	CERAMIC CHIP 0.01MF 10%	50V
C341	1-126-964-11	ELECT 10MF 20%	50V
C342	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C343	1-126-964-11	ELECT 10MF 20%	50V
C344	1-126-964-11	ELECT 10MF 20%	50V
C345	1-126-964-11	ELECT 10MF 20%	50V
C3401	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C3402	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C3404	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C3405	1-163-222-11	CERAMIC CHIP 5PF 0.25PF	50V
C3406	1-163-243-11	CERAMIC CHIP 47PF 5%	50V
C3407	1-126-965-11	ELECT 22MF 20%	50V
C3408	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C3410	1-104-665-11	ELECT 100MF 20%	10V
C3411	1-126-963-11	ELECT 4.7MF 20%	50V
C3412	1-126-963-11	ELECT 4.7MF 20%	50V
C3413	1-164-506-11	CERAMIC CHIP 4.7MF	16V
C3414	1-163-275-11	CERAMIC CHIP 0.001MF 5%	50V
C3415	1-163-021-91	CERAMIC CHIP 0.01MF 10%	50V
C3416	1-163-021-91	CERAMIC CHIP 0.01MF 10%	50V
C3418	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C3420	1-163-021-91	CERAMIC CHIP 0.01MF 10%	50V
C3421	1-163-021-91	CERAMIC CHIP 0.01MF 10%	50V
C3422	1-163-021-91	CERAMIC CHIP 0.01MF 10%	50V
C3423	1-163-021-91	CERAMIC CHIP 0.01MF 10%	50V
C3424	1-163-021-91	CERAMIC CHIP 0.01MF 10%	50V
C3425	1-163-021-91	CERAMIC CHIP 0.01MF 10%	50V
C3426	1-163-021-91	CERAMIC CHIP 0.01MF 10%	50V
C3427	1-163-021-91	CERAMIC CHIP 0.01MF 10%	50V
C3428	1-163-021-91	CERAMIC CHIP 0.01MF 10%	50V
C3429	1-163-021-91	CERAMIC CHIP 0.01MF 10%	50V
C3430	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C3431	1-163-021-91	CERAMIC CHIP 0.01MF 10%	50V
C3432	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C3433	1-163-021-91	CERAMIC CHIP 0.01MF 10%	50V
C3434	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C3435	1-163-021-91	CERAMIC CHIP 0.01MF 10%	50V
C3450	1-163-017-00	CERAMIC CHIP 0.0047MF 10%	50V
C3460	1-163-133-00	CERAMIC CHIP 470PF 5%	50V
C3461	1-126-966-11	ELECT 33MF 20%	16V
C3502	1-126-963-11	ELECT 4.7MF 20%	50V
C3503	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C3504	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C3505	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C3506	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C3507	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C3508	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C3509	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C3510	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C3511	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C3512	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C3513	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C3514	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C3515	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C3516	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C3517	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C3518	1-164-182-11	CERAMIC CHIP 0.0033MF 10%	50V
C3519	1-164-182-11	CERAMIC CHIP 0.0033MF 10%	50V
C3520	1-165-320-11	CERAMIC CHIP 0.47MF 10%	16V
C3521	1-164-506-11	CERAMIC CHIP 4.7MF	16V
C3522	1-164-506-11	CERAMIC CHIP 4.7MF	16V
C3523	1-126-963-11	ELECT 4.7MF 20%	50V
C3546	1-164-505-11	CERAMIC CHIP 2.2MF	16V
C3547	1-164-505-11	CERAMIC CHIP 2.2MF	16V
C3550	1-164-506-11	CERAMIC CHIP 4.7MF	16V
C3551	1-164-506-11	CERAMIC CHIP 4.7MF	16V
C3555	1-163-231-11	CERAMIC CHIP 15PF 5%	50V
C3556	1-163-231-11	CERAMIC CHIP 15PF 5%	50V
C3652	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C3655	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C3668	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C3671	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C3672	1-107-823-11	CERAMIC CHIP 0.47MF 10%	16V
C3673	1-126-964-11	ELECT 10MF 20%	50V
C3678	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C3680	1-163-097-00	CERAMIC CHIP 15PF 5%	50V
C3681	1-163-097-00	CERAMIC CHIP 15PF 5%	50V
C3682	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C3686	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C3688	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C3689	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C3690	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C3691	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C3692	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C3693	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C3694	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C3695	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V

REF. NO.	PART.NO	DESCRIPTION	REMARK
C3703	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C3708	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C3726	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C3727	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C3728	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C3729	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C3732	1-163-222-11	CERAMIC CHIP 5PF 0.25PF 50V	
C3735	1-163-001-11	CERAMIC CHIP 220PF 10% 50V	
C3742	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C3743	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
	<CONNECTOR>		
CN301	1-695-301-11	CONNECTOR, BOARD TO BOARD 40P	
CN302	1-695-301-11	CONNECTOR, BOARD TO BOARD 40P	
	<DIODE>		
D3501	8-719-401-41	DIODE MA3051L-TX	
	<FERRITE BEAD>		
FB304	1-414-234-22	INDUCTOR CHIP 0UH	
FB305	1-414-234-22	INDUCTOR CHIP 0UH	
FB307	1-414-234-22	INDUCTOR CHIP 0UH	
FB308	1-414-234-22	INDUCTOR CHIP 0UH	
FB309	1-414-234-22	INDUCTOR CHIP 0UH	
FB312	1-414-553-11	FERRITE 0UH	
FB313	1-414-553-11	FERRITE 0UH	
FB314	1-414-553-11	FERRITE 0UH	
FB315	1-414-950-21	FERRITE 0UH	
FB317	1-414-234-22	INDUCTOR CHIP 0UH	
FB318	1-414-234-22	INDUCTOR CHIP 0UH	
FB323	1-216-295-91	SHORT 0	
FB324	1-216-295-91	SHORT 0	
FB325	1-216-295-91	SHORT 0	
FB326	1-414-234-22	INDUCTOR CHIP 0UH	
FB327	1-414-234-22	INDUCTOR CHIP 0UH	
FB328	1-414-234-22	INDUCTOR CHIP 0UH	
FB329	1-414-234-22	INDUCTOR CHIP 0UH	
FB330	1-414-234-22	INDUCTOR CHIP 0UH	
FB331	1-414-234-22	INDUCTOR CHIP 0UH	
FB333	1-414-234-22	INDUCTOR CHIP 0UH	
FB334	1-414-234-22	INDUCTOR CHIP 0UH	
FB335	1-414-234-22	INDUCTOR CHIP 0UH	
FB336	1-414-234-22	INDUCTOR CHIP 0UH	
FB352	1-414-553-11	FERRITE 0UH	
FB353	1-414-553-11	FERRITE 0UH	
FB354	1-414-553-11	FERRITE 0UH	
FB356	1-216-295-91	SHORT 0	
FB357	1-414-234-22	INDUCTOR CHIP 0UH	
FB358	1-414-553-11	FERRITE 0UH	
FB359	1-414-553-11	FERRITE 0UH	
FB360	1-500-245-11	FERRITE 0UH	
FB361	1-500-245-11	FERRITE 0UH	
FB362	1-500-245-11	FERRITE 0UH	
FB363	1-216-295-91	SHORT 0	
FB364	1-500-245-11	FERRITE 0UH	
FB365	1-216-295-91	SHORT 0	
FB366	1-500-245-11	FERRITE 0UH	
FB367	1-500-245-11	FERRITE 0UH	
FB368	1-216-295-91	SHORT 0	
FB3601	1-414-234-22	INDUCTOR CHIP 0UH	
FB3602	1-414-234-22	INDUCTOR CHIP 0UH	
FB3626	1-414-950-21	FERRITE 0UH	
FB3652	1-414-553-11	FERRITE 0UH	
FB3653	1-414-553-11	FERRITE 0UH	
FB3654	1-414-553-11	FERRITE 0UH	
FB3660	1-500-245-11	FERRITE 0UH	
FB3661	1-500-245-11	FERRITE 0UH	
FB3662	1-500-245-11	FERRITE 0UH	
FB3663	1-216-295-91	SHORT 0	
FB3664	1-500-245-11	FERRITE 0UH	
FB3665	1-216-295-91	SHORT 0	
FB3666	1-500-245-11	FERRITE 0UH	
FB3671	1-500-245-11	FERRITE 0UH	
FB3672	1-500-245-11	FERRITE 0UH	
	<FILTER>		
FL301	1-233-893-21	FILTER, CHIP EMI	
FL302	1-233-893-21	FILTER, CHIP EMI	
FL303	1-233-767-21	FILTER	
FL305	1-415-940-21	DELAY LINE	
FL306	1-233-893-21	FILTER, CHIP EMI	
FL308	1-233-893-21	FILTER, CHIP EMI	
FL3401	1-233-893-21	FILTER, CHIP EMI	
FL3402	1-233-893-21	FILTER, CHIP EMI	
FL3403	1-233-893-21	FILTER, CHIP EMI	
FL3404	1-233-766-21	FILTER	
FL3405	1-233-768-21	FILTER (SMD)	
FL3406	1-233-893-21	FILTER, CHIP EMI	
FL3410	1-233-765-21	FILTER	
FL3502	1-233-893-21	FILTER, CHIP EMI	
	<IC>		
IC302	8-759-991-41	IC LM78L05ACZ	
IC304	8-759-257-59	IC TDA8755T-T	
IC307	8-759-295-09	IC TLC2932IPW	
IC309	8-759-438-64	IC SAA4952WP/V1	
IC310	8-759-295-09	IC TLC2932IPW	
IC311	8-759-439-25	IC TMS4C2972-26DTR	
IC312	8-759-991-41	IC LM78L05ACZ	
IC313	8-759-432-96	IC MC74F157ADR2	
IC314	8-759-432-96	IC MC74F157ADR2	
IC315	8-759-432-96	IC MC74F157ADR2	

B

REF. NO.	PART.NO	DESCRIPTION	REMARK
IC316	8-759-432-96	IC MC74F157ADR2	
IC317	8-759-561-81	IC P83C654EBA/582	
IC318	8-759-234-77	IC TC4S66F	
IC319	8-759-439-62	IC SAA4990H/V2	
IC320	8-759-058-62	IC TC7S08FU(TE85R)	
IC321	8-759-180-84	IC TC7W74F	
IC322	8-759-991-41	IC LM78L05ACZ	
IC323	8-759-439-25	IC TMS4C2972-26DTR	
IC324	8-759-467-19	IC SDA9280B22	
IC326	8-759-393-55	IC MC74F244MEL	
IC327	8-759-393-55	IC MC74F244MEL	
IC328	8-759-032-14	IC MC74HC08AF	
IC3401	8-752-379-35	IC CXD2044Q-TL	
IC3402	8-759-711-62	IC NJM2240M	
IC3403	8-759-385-76	IC MC14052BDR2	
IC3502	8-759-447-67	IC TDA9144/N1	
IC3503	8-759-565-20	IC TDA4665T/V5-118	
IC3601	8-759-058-62	IC TC7S08FU(TE85R)	
IC3607	8-759-295-09	IC TLC2932IPW	
IC3609	8-759-438-64	IC SAA4952WP/V1	
IC3611	8-759-439-25	IC TMS4C2972-26DTR	
IC3615	8-759-432-96	IC MC74F157ADR2	
IC3617	8-759-561-81	IC P83C654EBA/582	
IC3619	8-759-439-62	IC SAA4990H/V2	
IC3620	8-759-058-62	IC TC7S08FU(TE85R)	
IC3621	8-759-058-54	IC TC7S00FU(TE85R)	
IC3623	8-759-439-25	IC TMS4C2972-26DTR	
		<COIL>	
L301	1-408-597-31	INDUCTOR 3.3UH	
L303	1-410-435-21	INDUCTOR 220UH	
L304	1-410-435-21	INDUCTOR 220UH	
L308	1-408-789-21	INDUCTOR CHIP 100UH	
L309	1-408-603-31	INDUCTOR 10UH	
L310	1-412-029-11	INDUCTOR CHIP 10UH	
L311	1-412-029-11	INDUCTOR CHIP 10UH	
L312	1-412-029-11	INDUCTOR CHIP 10UH	
L313	1-412-029-11	INDUCTOR CHIP 10UH	
L314	1-412-029-11	INDUCTOR CHIP 10UH	
L315	1-412-029-11	INDUCTOR CHIP 10UH	
L316	1-412-029-11	INDUCTOR CHIP 10UH	
L317	1-412-029-11	INDUCTOR CHIP 10UH	
L318	1-408-610-31	INDUCTOR 39UH	
L319	1-408-610-31	INDUCTOR 39UH	
L320	1-412-029-11	INDUCTOR CHIP 10UH	
L321	1-412-029-11	INDUCTOR CHIP 10UH	
L322	1-412-029-11	INDUCTOR CHIP 10UH	
L323	1-412-029-11	INDUCTOR CHIP 10UH	
L3614	1-412-029-11	INDUCTOR CHIP 10UH	
L3615	1-412-029-11	INDUCTOR CHIP 10UH	
L3621	1-412-029-11	INDUCTOR CHIP 10UH	
L3623	1-412-029-11	INDUCTOR CHIP 10UH	
		<TRANSISTOR>	
Q301	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q303	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q304	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q305	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q306	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q307	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q311	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q312	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q313	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q3404	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q3405	8-729-216-22	TRANSISTOR 2SA1162-G	
Q3413	8-729-216-22	TRANSISTOR 2SA1162-G	
Q3515	8-729-038-96	TRANSISTOR IMZ1A-T109	
Q3516	8-729-038-96	TRANSISTOR IMZ1A-T109	
Q3517	8-729-038-96	TRANSISTOR IMZ1A-T109	
Q3608	8-729-216-22	TRANSISTOR 2SA1162-G	
Q3609	8-729-216-22	TRANSISTOR 2SA1162-G	
		<RESISTOR>	
JR3101	1-216-295-91	SHORT 0	
JR3103	1-216-295-91	SHORT 0	
JR3105	1-216-295-91	SHORT 0	
JR3439	1-216-295-91	SHORT 0	
JR3440	1-216-295-91	SHORT 0	
R309	1-216-055-00	RES,CHIP 1.8K 5% 1/10W	
R310	1-216-053-00	RES,CHIP 1.5K 5% 1/10W	
R311	1-216-065-91	RES,CHIP 4.7K 5% 1/10W	
R313	1-216-051-00	RES,CHIP 1.2K 5% 1/10W	
R314	1-216-059-00	RES,CHIP 2.7K 5% 1/10W	
R315	1-216-067-00	RES,CHIP 5.6K 5% 1/10W	
R319	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R320	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R321	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R323	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R324	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R326	1-216-075-00	RES,CHIP 12K 5% 1/10W	
R345	1-216-029-00	RES,CHIP 150 5% 1/10W	
R348	1-216-295-91	SHORT 0	
R350	1-216-063-91	RES,CHIP 3.9K 5% 1/10W	
R352	1-216-061-00	RES,CHIP 3.3K 5% 1/10W	
R353	1-216-047-91	RES,CHIP 820 5% 1/10W	
R354	1-216-009-91	RES,CHIP 22 5% 1/10W	
R359	1-216-063-91	RES,CHIP 3.9K 5% 1/10W	
R362	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R363	1-216-025-91	RES,CHIP 100 5% 1/10W	
R365	1-216-001-00	RES,CHIP 10 5% 1/10W	
R366	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R367	1-216-295-91	SHORT 0	

REF. NO.	PART.NO	DESCRIPTION			REMARK
R368	1-216-085-00	RES,CHIP	33K	5%	1/10W
R370	1-216-085-00	RES,CHIP	33K	5%	1/10W
R371	1-216-295-91	SHORT	0		
R373	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R374	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R375	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R376	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R377	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R378	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R379	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R380	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R381	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R382	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R383	1-216-076-00	RES,CHIP	13K	5%	1/10W
R384	1-216-055-00	RES,CHIP	1.8K	5%	1/10W
R385	1-216-017-91	RES,CHIP	47	5%	1/10W
R386	1-216-073-00	RES,CHIP	10K	5%	1/10W
R388	1-216-029-00	RES,CHIP	150	5%	1/10W
R389	1-216-049-91	RES,CHIP	1K	5%	1/10W
R390	1-216-017-91	RES,CHIP	47	5%	1/10W
R391	1-216-055-00	RES,CHIP	1.8K	5%	1/10W
R393	1-216-037-00	RES,CHIP	330	5%	1/10W
R394	1-216-049-91	RES,CHIP	1K	5%	1/10W
R395	1-216-027-00	RES,CHIP	120	5%	1/10W
R396	1-216-069-00	RES,CHIP	6.8K	5%	1/10W
R397	1-216-295-91	SHORT	0		
R398	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R399	1-216-039-00	RES,CHIP	390	5%	1/10W
R400	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R401	1-216-077-00	RES,CHIP	15K	5%	1/10W
R402	1-216-077-00	RES,CHIP	15K	5%	1/10W
R403	1-216-049-91	RES,CHIP	1K	5%	1/10W
R406	1-216-295-91	SHORT	0		
R408	1-216-025-91	RES,CHIP	100	5%	1/10W
R409	1-216-025-91	RES,CHIP	100	5%	1/10W
R410	1-216-295-91	SHORT	0		
R411	1-216-025-91	RES,CHIP	100	5%	1/10W
R413	1-216-001-00	RES,CHIP	10	5%	1/10W
R414	1-216-001-00	RES,CHIP	10	5%	1/10W
R415	1-216-001-00	RES,CHIP	10	5%	1/10W
R416	1-216-001-00	RES,CHIP	10	5%	1/10W
R417	1-216-001-00	RES,CHIP	10	5%	1/10W
R418	1-216-001-00	RES,CHIP	10	5%	1/10W
R419	1-216-001-00	RES,CHIP	10	5%	1/10W
R420	1-216-001-00	RES,CHIP	10	5%	1/10W
R423	1-216-001-00	RES,CHIP	10	5%	1/10W
R425	1-216-025-91	RES,CHIP	100	5%	1/10W
R426	1-216-295-91	SHORT	0		
R427	1-216-017-91	RES,CHIP	47	5%	1/10W
R428	1-216-029-00	RES,CHIP	150	5%	1/10W
R429	1-216-295-91	SHORT	0		
R430	1-216-037-00	RES,CHIP	330	5%	1/10W
R431	1-216-037-00	RES,CHIP	330	5%	1/10W
R433	1-216-033-00	RES,CHIP	220	5%	1/10W
R434	1-216-033-00	RES,CHIP	220	5%	1/10W
R435	1-216-033-00	RES,CHIP	220	5%	1/10W
R436	1-216-033-00	RES,CHIP	220	5%	1/10W
R437	1-216-033-00	RES,CHIP	220	5%	1/10W
R438	1-216-033-00	RES,CHIP	220	5%	1/10W
R439	1-216-033-00	RES,CHIP	220	5%	1/10W
R440	1-216-033-00	RES,CHIP	220	5%	1/10W
R441	1-216-033-00	RES,CHIP	220	5%	1/10W
R442	1-216-033-00	RES,CHIP	220	5%	1/10W
R443	1-216-033-00	RES,CHIP	220	5%	1/10W
R444	1-216-033-00	RES,CHIP	220	5%	1/10W
R445	1-216-009-91	RES,CHIP	22	5%	1/10W
R446	1-216-009-91	RES,CHIP	22	5%	1/10W
R448	1-216-023-00	RES,CHIP	82	5%	1/10W
R449	1-216-025-91	RES,CHIP	100	5%	1/10W
R450	1-216-039-00	RES,CHIP	390	5%	1/10W
R451	1-216-009-91	RES,CHIP	22	5%	1/10W
R455	1-216-025-91	RES,CHIP	100	5%	1/10W
R456	1-216-025-91	RES,CHIP	100	5%	1/10W
R461	1-216-049-91	RES,CHIP	1K	5%	1/10W
R462	1-216-049-91	RES,CHIP	1K	5%	1/10W
R465	1-216-049-91	RES,CHIP	1K	5%	1/10W
R466	1-216-049-91	RES,CHIP	1K	5%	1/10W
R467	1-216-049-91	RES,CHIP	1K	5%	1/10W
R469	1-216-073-00	RES,CHIP	10K	5%	1/10W
R470	1-216-073-00	RES,CHIP	10K	5%	1/10W
R471	1-216-073-00	RES,CHIP	10K	5%	1/10W
R472	1-216-029-00	RES,CHIP	150	5%	1/10W
R473	1-216-295-91	SHORT	0		
R474	1-216-295-91	SHORT	0		
R475	1-216-295-91	SHORT	0		
R476	1-216-295-91	SHORT	0		
R480	1-216-295-91	SHORT	0		
R481	1-216-295-91	SHORT	0		
R482	1-216-295-91	SHORT	0		
R483	1-216-295-91	SHORT	0		
R484	1-216-295-91	SHORT	0		
R485	1-216-295-91	SHORT	0		
R486	1-216-295-91	SHORT	0		
R487	1-216-295-91	SHORT	0		
R488	1-216-295-91	SHORT	0		
R489	1-216-295-91	SHORT	0		
R3401	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R3402	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R3403	1-216-037-00	RES,CHIP	330	5%	1/10W
R3404	1-216-037-00	RES,CHIP	330	5%	1/10W
R3405	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R3406	1-216-065-91	RES,CHIP	4.7K	5%	1/10W

B

REF. NO.	PART.NO	DESCRIPTION			REMARK
R3407	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R3408	1-216-017-91	RES,CHIP	47	5%	1/10W
R3409	1-216-017-91	RES,CHIP	47	5%	1/10W
R3410	1-216-039-00	RES,CHIP	390	5%	1/10W
R3411	1-216-069-00	RES,CHIP	6.8K	5%	1/10W
R3419	1-216-043-91	RES,CHIP	560	5%	1/10W
R3420	1-216-067-00	RES,CHIP	5.6K	5%	1/10W
R3421	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3425	1-216-009-91	RES,CHIP	22	5%	1/10W
R3430	1-216-061-00	RES,CHIP	3.3K	5%	1/10W
R3431	1-216-055-00	RES,CHIP	1.8K	5%	1/10W
R3432	1-216-061-00	RES,CHIP	3.3K	5%	1/10W
R3433	1-216-061-00	RES,CHIP	3.3K	5%	1/10W
R3434	1-216-033-00	RES,CHIP	220	5%	1/10W
R3435	1-216-033-00	RES,CHIP	220	5%	1/10W
R3436	1-216-653-11	METAL CHIP	1.2K	0.50%	1/10W
R3437	1-216-666-11	METAL CHIP	4.3K	0.50%	1/10W
R3438	1-216-041-00	RES,CHIP	470	5%	1/10W
R3439	1-216-041-00	RES,CHIP	470	5%	1/10W
R3440	1-216-037-00	RES,CHIP	330	5%	1/10W
R3441	1-216-017-91	RES,CHIP	47	5%	1/10W
R3444	1-216-039-00	RES,CHIP	390	5%	1/10W
R3446	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R3447	1-216-089-91	RES,CHIP	47K	5%	1/10W
R3448	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3449	1-216-125-00	RES,CHIP	1.5M	5%	1/10W
R3450	1-216-017-91	RES,CHIP	47	5%	1/10W
R3451	1-216-047-91	RES,CHIP	820	5%	1/10W
R3452	1-216-051-00	RES,CHIP	1.2K	5%	1/10W
R3453	1-216-047-91	RES,CHIP	820	5%	1/10W
R3454	1-216-051-00	RES,CHIP	1.2K	5%	1/10W
R3462	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R3508	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3511	1-216-095-00	RES,CHIP	82K	5%	1/10W
R3512	1-216-077-00	RES,CHIP	15K	5%	1/10W
R3513	1-216-025-91	RES,CHIP	100	5%	1/10W
R3514	1-216-033-00	RES,CHIP	220	5%	1/10W
R3517	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R3530	1-216-041-00	RES,CHIP	470	5%	1/10W
R3531	1-216-041-00	RES,CHIP	470	5%	1/10W
R3532	1-216-041-00	RES,CHIP	470	5%	1/10W
R3533	1-216-041-00	RES,CHIP	470	5%	1/10W
R3534	1-216-041-00	RES,CHIP	470	5%	1/10W
R3535	1-216-041-00	RES,CHIP	470	5%	1/10W
R3536	1-216-041-00	RES,CHIP	470	5%	1/10W
R3537	1-216-041-00	RES,CHIP	470	5%	1/10W
R3538	1-216-041-00	RES,CHIP	470	5%	1/10W
R3540	1-216-017-91	RES,CHIP	47	5%	1/10W
R3541	1-216-025-91	RES,CHIP	100	5%	1/10W
R3542	1-216-025-91	RES,CHIP	100	5%	1/10W
R3545	1-216-025-91	RES,CHIP	100	5%	1/10W

REF. NO.	PART.NO	DESCRIPTION			REMARK
R3551	1-216-037-00	RES,CHIP	330	5%	1/10W
R3552	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3571	1-218-179-11	RES,CHIP	10M	5%	1/10W
R3572	1-218-179-11	RES,CHIP	10M	5%	1/10W
R3573	1-218-179-11	RES,CHIP	10M	5%	1/10W
R3650	1-216-063-91	RES,CHIP	3.9K	5%	1/10W
R3662	1-216-089-91	RES,CHIP	47K	5%	1/10W
R3663	1-216-025-91	RES,CHIP	100	5%	1/10W
R3667	1-216-295-91	SHORT	0		
R3671	1-216-295-91	SHORT	0		
R3673	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R3674	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R3675	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R3676	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R3677	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R3678	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R3679	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R3680	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R3681	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R3689	1-216-041-00	RES,CHIP	470	5%	1/10W
R3690	1-216-033-00	RES,CHIP	220	5%	1/10W
R3691	1-216-033-00	RES,CHIP	220	5%	1/10W
R3692	1-216-033-00	RES,CHIP	220	5%	1/10W
R3693	1-216-033-00	RES,CHIP	220	5%	1/10W
R3694	1-216-041-00	RES,CHIP	470	5%	1/10W
R3698	1-216-295-91	SHORT	0		
R3699	1-216-295-91	SHORT	0		
R3725	1-216-025-91	RES,CHIP	100	5%	1/10W
R3726	1-216-295-91	SHORT	0		
R3729	1-216-295-91	SHORT	0		
R3748	1-216-023-00	RES,CHIP	82	5%	1/10W
R3749	1-216-025-91	RES,CHIP	100	5%	1/10W
R3750	1-216-039-00	RES,CHIP	390	5%	1/10W
R3776	1-216-295-91	SHORT	0		
R3789	1-216-295-91	SHORT	0		

< RESISTOR CHIP NETWORK >

RB313	1-239-711-91	NETWORK RESISTOR (CHIP) 0
RB314	1-239-711-91	NETWORK RESISTOR (CHIP) 0
RB315	1-239-711-91	NETWORK RESISTOR (CHIP) 0
RB3603	1-233-576-11	RES, CHIP NETWORK 100

< CRYSTAL >

X301	1-579-175-11	VIBRATOR, CERAMIC
X3501	1-567-505-11	OSCILLATOR, CRYSTAL
X3502	1-567-504-11	OSCILLATOR, CRYSTAL
X3601	1-579-175-11	VIBRATOR, CERAMIC

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The components identified by shading and marked ⚠ are critical for safety
Replace only with the part number specified.

F1 **A**

REF. NO.		PART.NO	DESCRIPTION			REMARK
		*A-1624-072-A	F1 BOARD, COMPLETE			
			**********			
			<CAPACITOR>			
C952		1-126-964-11	ELECT	10MF	20%	50V
C953	⚠	1-136-527-12	FILM	0.47MF	20%	300V
			<CONNECTOR>			
CN951		*1-568-880-51	PIN, CONNECTOR 5P			
CN952 *	⚠	1-580-843-11	PIN, CONNECTOR (POWER)			
CN953 *	⚠	1-691-291-11	PIN, CONNECTOR (PC BOARD) 5P			
			<DIODE>			
D951		4-203-258-11	HOLDER, LED			
D951		8-719-030-11	DIODE SLA-570KT3F			
			<FUSE>			
F951	⚠	1-532-299-11	FUSE 5A 250V			
			<IC>			
IC951		8-749-014-59	IC TSOP1740KS1			
			<FILTER>			
LF951	⚠	1-431-402-11	TRANSFORMER, LINE FILTER			
LF952	⚠	1-431-402-11	TRANSFORMER, LINE FILTER			
			<RESISTOR>			
R951		1-247-815-91	CARBON	220	5%	1/4W
R952		1-249-401-11	CARBON	47	5%	1/4W
R953	⚠	1-214-937-00	CARBON	1M	5%	1/2W
R954	⚠	1-205-998-11	CEMENTED	1	5%	10W
R955	⚠	1-205-998-11	CEMENTED	1	5%	10W
R956	⚠	1-205-998-11	CEMENTED	1	5%	10W
R957	⚠	1-205-998-11	CEMENTED	1	5%	10W
			<SWITCH>			
S951	⚠	1-571-433-21	SWITCH, PUSH (AC POWER)			
**********						
		*A-1632-770-A	A BOARD, COMPLETE			
			**********			
		1-750-797-11	SOCKET, PLCC			
		4-202-373-01	SPRING, IC			
		4-382-854-11	SCREW (M3X10), P, SW (+)			
			<CAPACITOR>			
C103		1-126-933-11	ELECT	100MF	20%	16V
C104		1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C105		1-126-967-11	ELECT	47MF	20%	50V
C106		1-126-933-11	ELECT	100MF	20%	16V
C107		1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C123		1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C127		1-126-934-11	ELECT	220MF	20%	10V
C129		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C138		1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C140		1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C143		1-164-346-11	CERAMIC CHIP	1MF		16V
C152		1-164-346-11	CERAMIC CHIP	1MF		16V
C153		1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C154		1-115-340-11	CERAMIC CHIP	0.22MF	10%	25V
C155		1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C156		1-104-664-11	ELECT	47MF	20%	25V
C201		1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C203		1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C204		1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C205		1-104-664-11	ELECT	47MF	20%	25V
C209		1-107-823-11	CERAMIC CHIP	0.47MF	10%	16V
C210		1-107-823-11	CERAMIC CHIP	0.47MF	10%	16V
C212		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C213		1-126-963-11	ELECT	4.7MF	20%	50V
C214		1-126-963-11	ELECT	4.7MF	20%	50V
C215		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C216		1-126-933-11	ELECT	100MF	20%	16V
C217		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C218		1-126-933-11	ELECT	100MF	20%	16V
C219		1-126-964-11	ELECT	10MF	20%	50V
C220		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C221		1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C222		1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C223		1-126-964-11	ELECT	10MF	20%	50V
C224		1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C225		1-163-087-00	CERAMIC CHIP	4PF	0.25PF	50V
C226		1-163-087-00	CERAMIC CHIP	4PF	0.25PF	50V
C227		1-164-182-11	CERAMIC CHIP	0.0033MF	10%	50V
C228		1-164-182-11	CERAMIC CHIP	0.0033MF	10%	50V
C229		1-164-182-11	CERAMIC CHIP	0.0033MF	10%	50V
C230		1-164-182-11	CERAMIC CHIP	0.0033MF	10%	50V
C231		1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C232		1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C233		1-126-933-11	ELECT	100MF	20%	16V
C235		1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C236		1-104-661-91	ELECT	330MF	20%	16V
C240		1-126-961-11	ELECT	2.2MF	20%	50V
C241		1-126-961-11	ELECT	2.2MF	20%	50V
C243		1-104-664-11	ELECT	47MF	20%	25V
C246		1-164-489-11	CERAMIC CHIP	0.22MF	10%	16V
C247		1-104-664-11	ELECT	47MF	20%	25V
C248		1-104-664-11	ELECT	47MF	20%	25V
C249		1-164-489-11	CERAMIC CHIP	0.22MF	10%	16V
C252		1-136-165-00	FILM	0.1MF	5%	50V
C253		1-126-953-11	ELECT	2200MF	20%	35V

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REF. NO.	PART.NO	DESCRIPTION			REMARK
C254	1-136-165-00	FILM	0.1MF	5%	50V
C255	1-136-165-00	FILM	0.1MF	5%	50V
C256	1-136-165-00	FILM	0.1MF	5%	50V
C257	1-126-953-11	ELECT	2200MF	20%	35V
C258	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C259	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C260	1-126-963-11	ELECT	4.7MF	20%	50V
C271	1-126-964-11	ELECT	10MF	20%	50V
C274	1-104-664-11	ELECT	47MF	20%	25V
C279	1-126-961-11	ELECT	2.2MF	20%	50V
C280	1-126-961-11	ELECT	2.2MF	20%	50V
C287	1-104-664-11	ELECT	47MF	20%	25V
C289	1-104-664-11	ELECT	47MF	20%	25V
C292	1-136-165-00	FILM	0.1MF	5%	50V
C293	1-136-165-00	FILM	0.1MF	5%	50V
C294	1-126-953-11	ELECT	2200MF	20%	35V
C295	1-126-953-11	ELECT	2200MF	20%	35V
C296	1-136-165-00	FILM	0.1MF	5%	50V
C297	1-136-165-00	FILM	0.1MF	5%	50V
C1101	1-104-664-11	ELECT	47MF	20%	25V
C1102	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C1105	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C1106	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C1107	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1108	1-126-967-11	ELECT	47MF	20%	50V
C1109	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C1110	1-126-964-11	ELECT	10MF	20%	50V
C1111	1-107-888-11	ELECT	47MF	20%	25V
C1113	1-126-964-11	ELECT	10MF	20%	50V
C1114	1-104-664-11	ELECT	47MF	20%	25V
C1117	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1118	1-126-964-11	ELECT	10MF	20%	50V
C1120	1-128-526-11	ELECT	100MF	20%	16V
C1121	1-128-526-11	ELECT	100MF	20%	16V
C1122	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1123	1-104-664-11	ELECT	47MF	20%	25V
C1124	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1125	1-104-664-11	ELECT	47MF	20%	25V
C1126	1-107-888-11	ELECT	47MF	20%	25V
C1127	1-107-888-11	ELECT	47MF	20%	25V
C1128	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1129	1-107-906-11	ELECT	10MF	20%	50V
C1130	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1131	1-107-682-11	CERAMIC CHIP	1MF	10%	16V
C1132	1-104-664-11	ELECT	47MF	20%	25V
C1133	1-104-664-11	ELECT	47MF	20%	25V
C1134	1-164-157-11	CERAMIC CHIP	0.068MF	10%	25V
C1135	1-104-664-11	ELECT	47MF	20%	25V
C1137	1-126-960-11	ELECT	1MF	20%	50V
C1138	1-126-964-11	ELECT	10MF	20%	50V
C1141	1-126-964-11	ELECT	10MF	20%	50V
C1142	1-115-340-11	CERAMIC CHIP	0.22MF	10%	25V
C1144	1-126-964-11	ELECT	10MF	20%	50V
C1145	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C1146	1-115-340-11	CERAMIC CHIP	0.22MF	10%	25V
C1147	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C1148	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C1149	1-115-340-11	CERAMIC CHIP	0.22MF	10%	25V
C1150	1-104-661-91	ELECT	330MF	20%	16V
C1152	1-115-340-11	CERAMIC CHIP	0.22MF	10%	25V
C1153	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1154	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1155	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1156	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C1157	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C1158	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C1159	1-163-263-11	CERAMIC CHIP	330PF	5%	50V
C1160	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C1161	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1162	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C1163	1-115-340-11	CERAMIC CHIP	0.22MF	10%	25V
C1164	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1165	1-115-340-11	CERAMIC CHIP	0.22MF	10%	25V
C1166	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1168	1-104-664-11	ELECT	47MF	20%	25V
C1169	1-107-909-11	ELECT	47MF	20%	50V
C1170	1-126-963-11	ELECT	4.7MF	20%	50V
C1171	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1175	1-115-340-11	CERAMIC CHIP	0.22MF	10%	25V
C1176	1-126-967-11	ELECT	47MF	20%	50V
C1177	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1178	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1179	1-104-664-11	ELECT	47MF	20%	25V
C1180	1-126-961-11	ELECT	2.2MF	20%	50V
C1182	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1183	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1184	1-126-964-11	ELECT	10MF	20%	50V
C1189	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1190	1-107-888-11	ELECT	47MF	20%	25V
C1191	1-107-888-11	ELECT	47MF	20%	25V
C1192	1-126-960-11	ELECT	1MF	20%	50V
C1193	1-107-905-11	ELECT	4.7MF	20%	50V
C1194	1-107-888-11	ELECT	47MF	20%	25V
C1195	1-107-906-11	ELECT	10MF	20%	50V
C1196	1-104-664-11	ELECT	47MF	20%	25V
C1197	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1198	1-126-964-11	ELECT	10MF	20%	50V
C1199	1-126-964-11	ELECT	10MF	20%	50V
C1207	1-110-489-11	CAPACITOR	1F		5.5V
C1208	1-115-340-11	CERAMIC CHIP	0.22MF	10%	25V
C1209	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C1211	1-136-165-00	FILM	0.1MF	5%	50V

REF. NO.	PART.NO	DESCRIPTION	REMARK
C1212	1-126-964-11	ELECT 10MF 20%	50V
C1213	1-126-933-11	ELECT 100MF 20%	16V
C1215	1-104-664-11	ELECT 47MF 20%	25V
C1217	1-164-492-11	CERAMIC CHIP 0.15MF 10%	16V
C1218	1-163-234-11	CERAMIC CHIP 20PF 5%	50V
C1219	1-163-009-11	CERAMIC CHIP 0.001MF 10%	50V
C1220	1-126-933-11	ELECT 100MF 20%	16V
C1301	1-126-967-11	ELECT 47MF 20%	50V
C1302	1-163-021-91	CERAMIC CHIP 0.01MF 10%	50V
C1303	1-216-295-91	SHORT 0	
C1304	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C1307	1-216-295-91	SHORT 0	
C1320	1-126-960-11	ELECT 1MF 20%	50V
C1321	1-107-823-11	CERAMIC CHIP 0.47MF 10%	16V
C1322	1-107-823-11	CERAMIC CHIP 0.47MF 10%	16V
C1323	1-107-823-11	CERAMIC CHIP 0.47MF 10%	16V
C1324	1-107-823-11	CERAMIC CHIP 0.47MF 10%	16V
C1325	1-107-823-11	CERAMIC CHIP 0.47MF 10%	16V
C1326	1-107-823-11	CERAMIC CHIP 0.47MF 10%	16V
C1327	1-107-823-11	CERAMIC CHIP 0.47MF 10%	16V
C1328	1-107-823-11	CERAMIC CHIP 0.47MF 10%	16V
C1329	1-107-823-11	CERAMIC CHIP 0.47MF 10%	16V
C1330	1-107-823-11	CERAMIC CHIP 0.47MF 10%	16V
C1331	1-107-823-11	CERAMIC CHIP 0.47MF 10%	16V
C1332	1-107-823-11	CERAMIC CHIP 0.47MF 10%	16V
C1333	1-107-823-11	CERAMIC CHIP 0.47MF 10%	16V
C1334	1-107-823-11	CERAMIC CHIP 0.47MF 10%	16V
C1335	1-107-823-11	CERAMIC CHIP 0.47MF 10%	16V
C1336	1-163-021-91	CERAMIC CHIP 0.01MF 10%	50V
C1337	1-107-823-11	CERAMIC CHIP 0.47MF 10%	16V
C1338	1-107-823-11	CERAMIC CHIP 0.47MF 10%	16V
C1339	1-107-823-11	CERAMIC CHIP 0.47MF 10%	16V
C1340	1-107-823-11	CERAMIC CHIP 0.47MF 10%	16V
C1341	1-107-823-11	CERAMIC CHIP 0.47MF 10%	16V
C1342	1-107-823-11	CERAMIC CHIP 0.47MF 10%	16V
C1343	1-104-665-11	ELECT 100MF 20%	25V
C1345	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C1348	1-107-823-11	CERAMIC CHIP 0.47MF 10%	16V
C1349	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C1350	1-107-823-11	CERAMIC CHIP 0.47MF 10%	16V
C1351	1-107-823-11	CERAMIC CHIP 0.47MF 10%	16V
C1352	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C1353	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C1354	1-107-823-11	CERAMIC CHIP 0.47MF 10%	16V
C1355	1-126-964-11	ELECT 10MF 20%	50V
C1356	1-126-964-11	ELECT 10MF 20%	50V
C1357	1-107-823-11	CERAMIC CHIP 0.47MF 10%	16V
C1359	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C1360	1-107-823-11	CERAMIC CHIP 0.47MF 10%	16V
C1366	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C1367	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V

REF. NO.	PART.NO	DESCRIPTION	REMARK
C1403	1-107-823-11	CERAMIC CHIP 0.47MF 10%	16V
C1404	1-107-823-11	CERAMIC CHIP 0.47MF 10%	16V
C1405	1-107-823-11	CERAMIC CHIP 0.47MF 10%	16V
C1406	1-104-664-11	ELECT 47MF 20%	25V
C1407	1-104-664-11	ELECT 47MF 20%	25V
C1411	1-104-665-11	ELECT 100MF 20%	25V
C1412	1-104-665-11	ELECT 100MF 20%	25V
C1414	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C1415	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C1416	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C1417	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C1418	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C1419	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C1420	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C1421	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C1422	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C1423	1-104-661-91	ELECT 330MF 20%	16V
C1424	1-126-964-11	ELECT 10MF 20%	50V
C1425	1-126-964-11	ELECT 10MF 20%	50V
C1426	1-126-964-11	ELECT 10MF 20%	50V
C1427	1-126-964-11	ELECT 10MF 20%	50V
C1431	1-104-665-11	ELECT 100MF 20%	25V
C1441	1-104-665-11	ELECT 100MF 20%	25V
C1449	1-163-009-11	CERAMIC CHIP 0.001MF 10%	50V
C1803	1-126-967-11	ELECT 47MF 20%	50V
C1804	1-126-967-11	ELECT 47MF 20%	50V
C1805	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C1806	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C1807	1-126-964-11	ELECT 10MF 20%	50V
C1808	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C1809	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C1810	1-126-964-11	ELECT 10MF 20%	50V
C1811	1-107-909-11	ELECT 47MF 20%	50V
C1812	1-107-909-11	ELECT 47MF 20%	50V
C1813	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C1814	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C1815	1-126-964-11	ELECT 10MF 20%	50V
C1816	1-126-964-11	ELECT 10MF 20%	50V
C1817	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C1818	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C1819	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C1820	1-126-967-11	ELECT 47MF 20%	50V
C1821	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C1822	1-107-905-11	ELECT 4.7MF 20%	50V
C1823	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C1824	1-107-905-11	ELECT 4.7MF 20%	50V
C1825	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C1826	1-107-906-11	ELECT 10MF 20%	50V
C1827	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V
C1828	1-107-906-11	ELECT 10MF 20%	50V
C1829	1-164-004-11	CERAMIC CHIP 0.1MF 10%	25V

A

REF. NO.	PART.NO	DESCRIPTION	REMARK
C1830	1-107-905-11	ELECT 4.7MF 20% 50V	
C1831	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C1832	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C1833	1-107-905-11	ELECT 4.7MF 20% 50V	
C1834	1-107-909-11	ELECT 47MF 20% 50V	
C1835	1-126-967-11	ELECT 47MF 20% 50V	
C1836	1-107-928-11	ELECT 4.7MF 20% 100V	
C1837	1-163-021-91	CERAMIC CHIP 0.01MF 10% 50V	
C1842	1-107-906-11	ELECT 10MF 20% 50V	
C1843	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C1844	1-107-906-11	ELECT 10MF 20% 50V	
C1845	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C1846	1-163-021-91	CERAMIC CHIP 0.01MF 10% 50V	
C1847	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C1848	1-126-964-11	ELECT 10MF 20% 50V	
C2501	1-163-227-11	CERAMIC CHIP 10PF 0.5PF 50V	
C2502	1-163-227-11	CERAMIC CHIP 10PF 0.5PF 50V	
C2503	1-163-011-11	CERAMIC CHIP 0.0015MF 10% 50V	
C2504	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C2505	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C2506	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
C2509	1-126-964-11	ELECT 10MF 20% 50V	
C2510	1-164-346-11	CERAMIC CHIP 1MF 16V	
C2511	1-163-237-11	CERAMIC CHIP 27PF 5% 50V	
C2512	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C2513	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C2514	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C2515	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C2516	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C2517	1-163-237-11	CERAMIC CHIP 27PF 5% 50V	
C2518	1-163-009-11	CERAMIC CHIP 0.001MF 10% 50V	
C2519	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
C2520	1-126-964-11	ELECT 10MF 20% 50V	
C2521	1-126-964-11	ELECT 10MF 20% 50V	
C2522	1-126-964-11	ELECT 10MF 20% 50V	
C2523	1-126-964-11	ELECT 10MF 20% 50V	
C3201	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C3202	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C3203	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C3204	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C3205	1-126-933-11	ELECT 100MF 20% 16V	
C3206	1-126-933-11	ELECT 100MF 20% 16V	
C3207	1-216-295-91	SHORT 0	
C3209	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C3210	1-163-263-11	CERAMIC CHIP 330PF 5% 50V	
C3211	1-163-021-91	CERAMIC CHIP 0.01MF 10% 50V	
C3212	1-107-823-11	CERAMIC CHIP 0.47MF 10% 16V	
C3213	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C3214	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C3216	1-126-933-11	ELECT 100MF 20% 16V	
C3233	1-107-682-11	CERAMIC CHIP 1MF 10% 16V	
C3301	1-163-021-91	CERAMIC CHIP 0.01MF 10% 50V	
C3303	1-107-823-11	CERAMIC CHIP 0.47MF 10% 16V	
C3304	1-107-823-11	CERAMIC CHIP 0.47MF 10% 16V	
		<FILTER>	
CD1105	1-527-992-31	OSCILLATOR, CERAMIC	
		<CONNECTOR>	
CN201 *	1-568-881-51	PIN, CONNECTOR 6P	
CN206 *	1-568-881-51	PIN, CONNECTOR 6P	
CN1102*	1-564-520-11	PLUG, CONNECTOR 5P	
CN1103*	1-564-520-11	PLUG, CONNECTOR 5P	
CN1105*	1-568-880-51	PIN, CONNECTOR 5P	
CN1106*	1-568-880-51	PIN, CONNECTOR 5P	
CN1108*	1-568-880-51	PIN, CONNECTOR 5P	
CN1109*	1-568-881-51	PIN, CONNECTOR 6P	
CN1110*	1-568-882-51	PIN, CONNECTOR 7P	
CN1111*	1-568-878-51	PIN, CONNECTOR 3P	
CN1301	1-695-298-11	CONNECTOR, BOARD TO BOARD 40P	
CN1305*	1-564-511-11	PLUG, CONNECTOR 8P	
CN1803	1-695-298-11	CONNECTOR, BOARD TO BOARD 40P	
CN1804	1-695-298-11	CONNECTOR, BOARD TO BOARD 40P	
CN1806	1-695-299-11	CONNECTOR, BOARD TO BOARD 50P	
CN1807	1-695-297-11	CONNECTOR, BOARD TO BOARD 20P	
CN1808	1-695-297-11	CONNECTOR, BOARD TO BOARD 20P	
CN1809*	1-564-509-11	PLUG, CONNECTOR 6P	
CN1810*	1-564-509-11	PLUG, CONNECTOR 6P	
CN2501*	1-568-882-51	PIN, CONNECTOR 7P	
CN2502*	1-564-511-11	PLUG, CONNECTOR 8P	
CN2504*	1-568-878-51	PIN, CONNECTOR 3P	
		<COMPOSITION CIRCUIT BLOCK>	
CP101	8-598-468-00	RF SPLITTER RFD-AU601	
		<DIODE>	
D102	8-719-914-43	DIODE DAN202K	
D201	8-719-991-33	DIODE 1SS133T-77	
D203	8-719-914-43	DIODE DAN202K	
D204	8-719-991-33	DIODE 1SS133T-77	
D205	8-719-914-43	DIODE DAN202K	
D206	8-719-914-42	DIODE DA204K	
D207	8-719-991-33	DIODE 1SS133T-77	
D208	8-719-991-33	DIODE 1SS133T-77	
D209	8-719-991-33	DIODE 1SS133T-77	
D210	8-719-991-33	DIODE 1SS133T-77	
D211	8-719-991-33	DIODE 1SS133T-77	
D212	8-719-991-33	DIODE 1SS133T-77	
D213	8-719-991-33	DIODE 1SS133T-77	
D214	8-719-991-33	DIODE 1SS133T-77	
D1101	8-719-404-46	DIODE MA110	

REF. NO.	PART.NO	DESCRIPTION	REMARK
D1102	8-719-404-46	DIODE MA110	
D1103	8-719-404-46	DIODE MA110	
D1104	8-719-404-46	DIODE MA110	
D1105	8-719-404-46	DIODE MA110	
D1106	8-719-404-46	DIODE MA110	
D1107	8-719-404-46	DIODE MA110	
D1108	8-719-404-46	DIODE MA110	
D1109	8-719-056-83	DIODE UDZ-TE-17-6.8B	
D1110	8-719-911-19	DIODE 1SS119-25	
D1111	8-719-404-46	DIODE MA110	
D1112	8-719-404-46	DIODE MA110	
D1115	8-719-914-44	DIODE DAP202K	
D1116	8-719-105-91	DIODE RD5.6M-B2	
D1117	8-719-914-43	DIODE DAN202K	
D1118	8-719-105-91	DIODE RD5.6M-B2	
D1119	8-719-914-43	DIODE DAN202K	
D1120	8-719-025-31	DIODE 02CZ5.6-TE85L	
D1121	8-719-025-31	DIODE 02CZ5.6-TE85L	
D1122	8-719-404-46	DIODE MA110	
D1123	8-719-404-46	DIODE MA110	
D1124	8-719-404-46	DIODE MA110	
D1125	8-719-404-46	DIODE MA110	
D1126	8-719-404-46	DIODE MA110	
D1127	8-719-404-46	DIODE MA110	
D1128	8-719-404-46	DIODE MA110	
D1129	8-719-404-46	DIODE MA110	
D1134	8-719-914-42	DIODE DA204K	
D1135	8-719-914-42	DIODE DA204K	
D1136	8-719-914-42	DIODE DA204K	
D1137	8-719-914-42	DIODE DA204K	
D1138	8-719-914-42	DIODE DA204K	
D1139	8-719-914-43	DIODE DAN202K	
D1141	8-719-048-55	DIODE MTZJ-T-77-10C	
D1142	8-719-109-88	DIODE RD5.6ESB1	
D1143	8-719-976-99	DIODE DTZ5.1B	
D1310	8-719-025-29	DIODE 02CZ5.1-TE85L	
D1311	8-719-404-46	DIODE MA110	
D1312	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D1801	8-719-404-46	DIODE MA110	
D1802	8-719-404-46	DIODE MA110	
D1803	8-719-404-46	DIODE MA110	
D1804	8-719-404-46	DIODE MA110	
D1805	8-719-404-46	DIODE MA110	
D1806	8-719-404-46	DIODE MA110	
D2501	8-719-914-43	DIODE DAN202K	
D2502	8-719-028-00	DIODE MA3033-L	
D3201	8-719-914-44	DIODE DAP202K	

<FERRITE BEAD>

FB201	1-410-396-41	FERRITE	0.45UH
FB202	1-410-396-41	FERRITE	0.45UH
FB203	1-410-396-41	FERRITE	0.45UH
FB204	1-410-396-41	FERRITE	0.45UH
FB206	1-414-553-11	FERRITE	0UH
FB207	1-414-553-11	FERRITE	0UH
FB208	1-500-245-11	FERRITE	0UH
FB209	1-414-553-11	FERRITE	0UH
FB210	1-414-553-11	FERRITE	0UH
FB211	1-414-553-11	FERRITE	0UH
FB212	1-414-553-11	FERRITE	0UH
FB213	1-414-553-11	FERRITE	0UH
FB214	1-414-553-11	FERRITE	0UH
FB215	1-414-553-11	FERRITE	0UH
FB1801	1-414-234-22	INDUCTOR CHIP	0UH
FB1802	1-414-234-22	INDUCTOR CHIP	0UH
FB1803	1-414-234-22	INDUCTOR CHIP	0UH
FB1804	1-414-234-22	INDUCTOR CHIP	0UH
FB1805	1-414-234-22	INDUCTOR CHIP	0UH
FB1806	1-414-234-22	INDUCTOR CHIP	0UH
FB1807	1-414-234-22	INDUCTOR CHIP	0UH
FB1808	1-414-234-22	INDUCTOR CHIP	0UH
FB1809	1-216-295-91	SHORT	0
FB1810	1-216-017-91	RES,CHIP	47 5% 1/10W
FB1811	1-216-295-91	SHORT	0
FB1812	1-216-295-91	SHORT	0
FB1813	1-414-234-22	INDUCTOR CHIP	0UH
FB1814	1-414-234-22	INDUCTOR CHIP	0UH
FB1815	1-414-234-22	INDUCTOR CHIP	0UH
FB1816	1-414-234-22	INDUCTOR CHIP	0UH
FB1817	1-414-234-22	INDUCTOR CHIP	0UH
FB1818	1-414-234-22	INDUCTOR CHIP	0UH
FB1819	1-414-234-22	INDUCTOR CHIP	0UH
FB1820	1-414-234-22	INDUCTOR CHIP	0UH
FB1821	1-414-234-22	INDUCTOR CHIP	0UH
FB1822	1-414-234-22	INDUCTOR CHIP	0UH
FB1823	1-414-234-22	INDUCTOR CHIP	0UH
FB1824	1-414-234-22	INDUCTOR CHIP	0UH
FB1825	1-414-234-22	INDUCTOR CHIP	0UH
FB1826	1-414-234-22	INDUCTOR CHIP	0UH
FB1827	1-414-234-22	INDUCTOR CHIP	0UH
FB1828	1-414-234-22	INDUCTOR CHIP	0UH
FB1829	1-414-234-22	INDUCTOR CHIP	0UH
FB1830	1-414-234-11	INDUCTOR CHIP	0UH
FB1831	1-414-234-11	INDUCTOR CHIP	0UH
FB2501	1-414-553-11	FERRITE	0UH
FB2502	1-414-553-11	FERRITE	0UH

<FILTER>

FL101	1-236-071-11	ENCAPSULATED COMPONENT
FL102	1-236-071-11	ENCAPSULATED COMPONENT
FL103	1-236-071-11	ENCAPSULATED COMPONENT
FL201	1-233-764-21	FILTER
FL202	1-236-071-11	ENCAPSULATED COMPONENT

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REF. NO.	PART.NO	DESCRIPTION	REMARK
FL203	1-236-071-11	ENCAPSULATED COMPONENT	
FL204	1-236-071-11	ENCAPSULATED COMPONENT	
FL205	1-236-071-11	ENCAPSULATED COMPONENT	
FL206	1-236-071-11	ENCAPSULATED COMPONENT	
FL207	1-236-071-11	ENCAPSULATED COMPONENT	
FL1105	1-236-071-11	ENCAPSULATED COMPONENT	
FL1106	1-236-071-11	ENCAPSULATED COMPONENT	
FL1107	1-236-071-11	ENCAPSULATED COMPONENT	
FL1108	1-236-071-11	ENCAPSULATED COMPONENT	
		<IC>	
IC103	8-759-514-57	IC BA7046F	
IC201	8-759-491-94	IC MSP3410D-PS-B4-T	
IC202	8-759-190-89	IC TDA7265	
IC203	8-759-190-89	IC TDA7265	
IC204	8-759-342-60	IC PST575DMT-T1	
IC205	8-759-439-65	IC TC9337F-015	
IC1101	8-752-072-94	IC CXA1875AM-T4	
IC1105	8-759-507-29	IC LM7808CT	
IC1108	8-759-335-72	IC UPC24A05HF	
IC1109	8-759-335-72	IC UPC24A05HF	
IC1111	8-759-259-18	IC MB3793-42PNF	
IC1112	8-759-483-52	IC HYB514400BJ-60	
IC1113	8-759-438-62	IC SDA5275	
IC1114	8-759-008-67	IC MC14066BF	
IC1116	8-759-442-44	IC SDA30C164-2-GEG	
IC1121	8-759-390-51	IC UPC2409AHF	
IC1123	1-526-652-21	SOCKET, IC (DP) 8P	
IC1123	8-759-560-25	IC M24C64-WBN6	
IC1126	8-759-990-63	IC PCF8574AT	
IC1127	8-759-058-62	IC TC7S08FU(TE85R)	
IC1132	8-759-990-63	IC PCF8574AT	
IC1133	8-759-822-38	IC LA6510	
IC1134	8-759-008-70	IC LM358N	
IC1135	8-759-325-48	IC CA0005AD	
IC1136	8-759-058-62	IC TC7S08FU(TE85R)	
IC1137	8-759-058-54	IC TC7S00FU(TE85R)	
IC1141	8-759-478-44	IC PCF8593/T118	
IC1301	8-759-300-71	IC HD14053BFP	
IC1302	8-759-058-62	IC TC7S08FU(TE85R)	
IC1318	8-752-082-92	IC CXA2101Q-TL	
IC1320	8-752-058-68	IC CXA1315M	
IC1325	8-759-031-84	IC SC7S04F	
IC1326	8-759-031-84	IC SC7S04F	
IC1329	8-759-058-62	IC TC7S08FU(TE85R)	
IC1330	8-759-058-62	IC TC7S08FU(TE85R)	
IC1801	8-759-058-54	IC TC7S00FU(TE85R)	
IC1802	8-759-058-54	IC TC7S00FU(TE85R)	
IC1803	8-759-058-54	IC TC7S00FU(TE85R)	
IC1804	8-759-300-71	IC HD14053BFP	
IC1805	8-759-058-62	IC TC7S08FU(TE85R)	
IC1806	8-759-058-62	IC TC7S08FU(TE85R)	
IC1807	8-759-701-59	IC NJM78M09FA	
IC1808	8-759-908-15	IC TL431CLP	
IC1809	8-759-058-62	IC TC7S08FU(TE85R)	
IC1810	8-759-058-54	IC TC7S00FU(TE85R)	
IC2501	8-759-421-42	IC SDA9361	
IC2502	8-759-087-73	IC S-80745AN-D9-S	
IC3201	8-759-342-60	IC PST575DMT-T1	
IC3301	8-759-300-71	IC HD14053BFP	
		<COIL>	
L107	1-408-615-31	INDUCTOR 100UH	
L201	1-408-615-31	INDUCTOR 100UH	
L1101	1-408-615-31	INDUCTOR 100UH	
L1102	1-412-541-41	INDUCTOR 220UH	
L1103	1-408-611-31	INDUCTOR 47UH	
L1105	1-408-611-31	INDUCTOR 47UH	
L1106	1-408-611-31	INDUCTOR 47UH	
L1109	1-412-537-31	INDUCTOR 100UH	
L1301	1-408-615-31	INDUCTOR 100UH	
L1302	1-408-609-41	INDUCTOR 33UH	
L1303	1-408-609-41	INDUCTOR 33UH	
L1304	1-408-603-31	INDUCTOR 10UH	
L1305	1-412-545-11	INDUCTOR 470UH	
L1306	1-408-603-31	INDUCTOR 10UH	
L1307	1-408-412-00	INDUCTOR 18UH	
L1308	1-408-603-31	INDUCTOR 10UH	
L1310	1-408-615-31	INDUCTOR 100UH	
L1801	1-406-664-21	INDUCTOR 68UH	
		<TRANSISTOR>	
Q108	8-729-216-22	TRANSISTOR 2SA1162-G	
Q109	8-729-216-22	TRANSISTOR 2SA1162-G	
Q110	8-729-035-81	TRANSISTOR 2SB1436-QR	
Q111	8-729-901-00	TRANSISTOR DTC124EK	
Q114	8-729-216-22	TRANSISTOR 2SA1162-G	
Q202	8-729-216-22	TRANSISTOR 2SA1162-G	
Q203	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q205	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q206	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q209	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q210	8-729-027-31	TRANSISTOR DTA124EKA-T146	
Q211	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q212	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q213	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q215	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q1108	8-729-035-81	TRANSISTOR 2SB1436-QR	
Q1110	8-729-901-00	TRANSISTOR DTC124EK	
Q1111	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q1112	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q1113	8-729-216-22	TRANSISTOR 2SA1162-G	

REF. NO.	PART.NO	DESCRIPTION	REMARK
Q1116	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q1117	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q1120	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q1121	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q1122	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1123	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1124	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1125	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1126	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q1127	8-729-028-28	TRANSISTOR 2SK2036(TE85L)	
Q1128	8-729-028-28	TRANSISTOR 2SK2036(TE85L)	
Q1129	8-729-028-28	TRANSISTOR 2SK2036(TE85L)	
Q1130	8-729-028-28	TRANSISTOR 2SK2036(TE85L)	
Q1133	8-729-140-97	TRANSISTOR 2SB734-34	
Q1134	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q1301	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q1302	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1303	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1312	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q1313	8-729-422-37	TRANSISTOR 2SB709A-R	
Q1316	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q1317	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q1318	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1329	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1330	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1331	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1332	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q1801	8-729-034-57	TRANSISTOR IRFIZ44G	
Q1802	8-729-140-04	TRANSISTOR 2SB1116A-L	
Q1803	8-729-901-00	TRANSISTOR DTC124EK	
Q1804	8-729-900-53	TRANSISTOR DTC114EK	
Q1805	8-729-034-57	TRANSISTOR IRFIZ44G	
Q1806	8-729-035-81	TRANSISTOR 2SB1436-QR	
Q1807	8-729-035-81	TRANSISTOR 2SB1436-QR	
Q1808	8-729-021-82	TRANSISTOR 2SD2396K	
Q1809	8-729-901-00	TRANSISTOR DTC124EK	
Q1810	8-729-901-00	TRANSISTOR DTC124EK	
Q1811	8-729-035-81	TRANSISTOR 2SB1436-QR	
Q1812	8-729-901-00	TRANSISTOR DTC124EK	
Q1813	8-729-028-28	TRANSISTOR 2SK2036(TE85L)	
Q1814	8-729-028-28	TRANSISTOR 2SK2036(TE85L)	
Q1815	8-729-035-81	TRANSISTOR 2SB1436-QR	
Q1816	8-729-901-00	TRANSISTOR DTC124EK	
Q1817	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1818	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1819	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1820	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1821	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1822	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1823	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1824	8-729-120-28	TRANSISTOR 2SC1623-L5L6	

REF. NO.	PART.NO	DESCRIPTION			
Q3301	1-801-806-11	TRANSISTOR DTC144EKA-T146			
		<RESISTOR>			
JR1	1-216-295-91	SHORT	0		
JR2	1-216-295-91	SHORT	0		
JR3	1-216-295-91	SHORT	0		
JR4	1-216-295-91	SHORT	0		
JR17	1-216-295-91	SHORT	0		
JR18	1-216-295-91	SHORT	0		
JR19	1-216-295-91	SHORT	0		
JR21	1-216-295-91	SHORT	0		
JR31	1-216-295-91	SHORT	0		
JR32	1-216-295-91	SHORT	0		
JR34	1-216-295-91	SHORT	0		
JR35	1-216-295-91	SHORT	0		
JR36	1-216-295-91	SHORT	0		
JR37	1-216-295-91	SHORT	0		
JR38	1-216-295-91	SHORT	0		
JR39	1-216-295-91	SHORT	0		
JR40	1-216-295-91	SHORT	0		
JR41	1-216-295-91	SHORT	0		
JR42	1-216-295-91	SHORT	0		
JR43	1-216-295-91	SHORT	0		
JR201	1-216-295-91	SHORT	0		
JR202	1-216-295-91	SHORT	0		
JR203	1-216-295-91	SHORT	0		
JR206	1-216-295-91	SHORT	0		
JR1108	1-216-295-91	SHORT	0		
JR1109	1-216-295-91	SHORT	0		
JR1110	1-216-295-91	SHORT	0		
JR3201	1-216-295-91	SHORT	0		
JR3203	1-216-295-91	SHORT	0		
JR3204	1-216-295-91	SHORT	0		
R125	1-216-073-00	RES,CHIP	10K	5%	1/10W
R126	1-216-061-00	RES,CHIP	3.3K	5%	1/10W
R133	1-216-025-91	RES,CHIP	100	5%	1/10W
R136	1-216-049-91	RES,CHIP	1K	5%	1/10W
R138	1-216-037-00	RES,CHIP	330	5%	1/10W
R140	1-216-049-91	RES,CHIP	1K	5%	1/10W
R141	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R142	1-216-073-00	RES,CHIP	10K	5%	1/10W
R146	1-216-107-00	RES,CHIP	270K	5%	1/10W
R147	1-216-113-00	RES,CHIP	470K	5%	1/10W
R150	1-216-113-00	RES,CHIP	470K	5%	1/10W
R151	1-218-755-11	METAL CHIP	130K	0.50%	1/10W
R152	1-216-073-00	RES,CHIP	10K	5%	1/10W
R153	1-216-113-00	RES,CHIP	470K	5%	1/10W
R154	1-216-295-91	SHORT	0		
R155	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R157	1-216-049-91	RES,CHIP	1K	5%	1/10W
R158	1-216-049-91	RES,CHIP	1K	5%	1/10W

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REF. NO.	PART.NO	DESCRIPTION			REMARK
R202	1-216-025-91	RES,CHIP	100	5%	1/10W
R204	1-216-295-91	SHORT	0		
R206	1-216-049-91	RES,CHIP	1K	5%	1/10W
R208	1-216-045-00	RES,CHIP	680	5%	1/10W
R209	1-216-053-00	RES,CHIP	1.5K	5%	1/10W
R210	1-216-081-00	RES,CHIP	22K	5%	1/10W
R211	1-216-081-00	RES,CHIP	22K	5%	1/10W
R212	1-216-049-91	RES,CHIP	1K	5%	1/10W
R218	1-216-295-91	SHORT	0		
R219	1-216-295-91	SHORT	0		
R220	1-216-025-91	RES,CHIP	100	5%	1/10W
R221	1-216-295-91	SHORT	0		
R222	1-216-295-91	SHORT	0		
R223	1-216-025-91	RES,CHIP	100	5%	1/10W
R224	1-216-025-91	RES,CHIP	100	5%	1/10W
R225	1-216-049-91	RES,CHIP	1K	5%	1/10W
R226	1-216-033-00	RES,CHIP	220	5%	1/10W
R227	1-216-033-00	RES,CHIP	220	5%	1/10W
R228	1-216-033-00	RES,CHIP	220	5%	1/10W
R229	1-216-025-91	RES,CHIP	100	5%	1/10W
R230	1-216-025-91	RES,CHIP	100	5%	1/10W
R231	1-216-073-00	RES,CHIP	10K	5%	1/10W
R232	1-216-073-00	RES,CHIP	10K	5%	1/10W
R233	1-216-055-00	RES,CHIP	1.8K	5%	1/10W
R235	1-216-295-91	SHORT	0		
R236	1-216-121-91	RES,CHIP	1M	5%	1/10W
R238	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R239	1-216-049-91	RES,CHIP	1K	5%	1/10W
R240	1-216-295-91	SHORT	0		
R241	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R245	1-216-039-00	RES,CHIP	390	5%	1/10W
R246	1-216-097-91	RES,CHIP	100K	5%	1/10W
R248	1-216-073-00	RES,CHIP	10K	5%	1/10W
R250	1-216-049-91	RES,CHIP	1K	5%	1/10W
R251	1-216-073-00	RES,CHIP	10K	5%	1/10W
R252	1-216-049-91	RES,CHIP	1K	5%	1/10W
R255	1-216-053-00	RES,CHIP	1.5K	5%	1/10W
R256	1-216-049-91	RES,CHIP	1K	5%	1/10W
R257	1-216-041-00	RES,CHIP	470	5%	1/10W
R258	1-216-041-00	RES,CHIP	470	5%	1/10W
R259	1-216-075-00	RES,CHIP	12K	5%	1/10W
R260	1-216-075-00	RES,CHIP	12K	5%	1/10W
R261	1-216-073-00	RES,CHIP	10K	5%	1/10W
R262	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R263	1-216-049-91	RES,CHIP	1K	5%	1/10W
R264	1-216-357-00	METAL OXIDE	4.7	5%	1W F
R265	1-216-089-91	RES,CHIP	47K	5%	1/10W
R266	1-216-236-11	RES,CHIP	39K	5%	1/8W
R267	1-216-357-00	METAL OXIDE	4.7	5%	1W F
R268	1-216-077-00	RES,CHIP	15K	5%	1/10W
R269	1-216-073-00	RES,CHIP	10K	5%	1/10W
R270	1-216-295-91	SHORT	0		
R271	1-216-295-91	SHORT	0		
R272	1-216-049-91	RES,CHIP	1K	5%	1/10W
R273	1-216-049-91	RES,CHIP	1K	5%	1/10W
R274	1-216-069-00	RES,CHIP	6.8K	5%	1/10W
R275	1-216-069-00	RES,CHIP	6.8K	5%	1/10W
R276	1-216-081-00	RES,CHIP	22K	5%	1/10W
R277	1-216-049-91	RES,CHIP	1K	5%	1/10W
R279	1-216-049-91	RES,CHIP	1K	5%	1/10W
R284	1-216-049-91	RES,CHIP	1K	5%	1/10W
R286	1-216-041-00	RES,CHIP	470	5%	1/10W
R288	1-216-041-00	RES,CHIP	470	5%	1/10W
R289	1-216-075-00	RES,CHIP	12K	5%	1/10W
R291	1-216-075-00	RES,CHIP	12K	5%	1/10W
R292	1-216-049-91	RES,CHIP	1K	5%	1/10W
R293	1-216-073-00	RES,CHIP	10K	5%	1/10W
R294	1-216-073-00	RES,CHIP	10K	5%	1/10W
R295	1-216-041-00	RES,CHIP	470	5%	1/10W
R1101	1-216-025-91	RES,CHIP	100	5%	1/10W
R1102	1-216-025-91	RES,CHIP	100	5%	1/10W
R1103	1-216-025-91	RES,CHIP	100	5%	1/10W
R1104	1-216-025-91	RES,CHIP	100	5%	1/10W
R1105	1-216-033-00	RES,CHIP	220	5%	1/10W
R1106	1-216-033-00	RES,CHIP	220	5%	1/10W
R1107	1-216-025-91	RES,CHIP	100	5%	1/10W
R1110	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1111	1-216-033-00	RES,CHIP	220	5%	1/10W
R1113	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1115	1-216-083-00	RES,CHIP	27K	5%	1/10W
R1116	1-216-295-91	SHORT	0		
R1118	1-216-295-91	SHORT	0		
R1119	1-216-081-00	RES,CHIP	22K	5%	1/10W
R1120	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1121	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1124	1-216-025-91	RES,CHIP	100	5%	1/10W
R1125	1-216-025-91	RES,CHIP	100	5%	1/10W
R1126	1-216-025-91	RES,CHIP	100	5%	1/10W
R1128	1-216-089-91	RES,CHIP	47K	5%	1/10W
R1129	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1130	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1133	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1136	1-216-121-91	RES,CHIP	1M	5%	1/10W
R1137	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1139	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1140	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1143	1-216-025-91	RES,CHIP	100	5%	1/10W
R1144	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1145	1-216-025-91	RES,CHIP	100	5%	1/10W
R1146	1-216-025-91	RES,CHIP	100	5%	1/10W
R1147	1-216-041-00	RES,CHIP	470	5%	1/10W
R1148	1-216-049-91	RES,CHIP	1K	5%	1/10W

REF. NO.	PART.NO	DESCRIPTION			REMARK
R1149	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1150	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R1151	1-216-025-91	RES,CHIP	100	5%	1/10W
R1152	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1154	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1155	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1156	1-216-025-91	RES,CHIP	100	5%	1/10W
R1157	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1158	1-216-097-91	RES,CHIP	100K	5%	1/10W
R1159	1-216-025-91	RES,CHIP	100	5%	1/10W
R1160	1-216-295-91	SHORT	0		
R1162	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R1164	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R1165	1-216-025-91	RES,CHIP	100	5%	1/10W
R1166	1-216-017-91	RES,CHIP	47	5%	1/10W
R1167	1-216-037-00	RES,CHIP	330	5%	1/10W
R1168	1-216-025-91	RES,CHIP	100	5%	1/10W
R1169	1-216-017-91	RES,CHIP	47	5%	1/10W
R1170	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R1172	1-216-025-91	RES,CHIP	100	5%	1/10W
R1173	1-216-017-91	RES,CHIP	47	5%	1/10W
R1174	1-216-025-91	RES,CHIP	100	5%	1/10W
R1175	1-216-017-91	RES,CHIP	47	5%	1/10W
R1176	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1177	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1178	1-216-025-91	RES,CHIP	100	5%	1/10W
R1179	1-216-025-91	RES,CHIP	100	5%	1/10W
R1180	1-216-025-91	RES,CHIP	100	5%	1/10W
R1181	1-216-025-91	RES,CHIP	100	5%	1/10W
R1182	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R1183	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R1184	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R1185	1-216-025-91	RES,CHIP	100	5%	1/10W
R1186	1-216-295-91	SHORT	0		
R1187	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R1188	1-216-025-91	RES,CHIP	100	5%	1/10W
R1189	1-216-025-91	RES,CHIP	100	5%	1/10W
R1190	1-216-025-91	RES,CHIP	100	5%	1/10W
R1192	1-216-025-91	RES,CHIP	100	5%	1/10W
R1193	1-216-295-91	SHORT	0		
R1194	1-216-295-91	SHORT	0		
R1195	1-216-001-00	RES,CHIP	10	5%	1/10W
R1196	1-216-295-91	SHORT	0		
R1198	1-216-025-91	RES,CHIP	100	5%	1/10W
R1199	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R1201	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1202	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1203	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1204	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1211	1-216-025-91	RES,CHIP	100	5%	1/10W
R1212	1-216-029-00	RES,CHIP	150	5%	1/10W
R1215	1-216-025-91	RES,CHIP	100	5%	1/10W
R1216	1-216-025-91	RES,CHIP	100	5%	1/10W
R1220	1-216-025-91	RES,CHIP	100	5%	1/10W
R1221	1-216-025-91	RES,CHIP	100	5%	1/10W
R1222	1-216-025-91	RES,CHIP	100	5%	1/10W
R1223	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1226	1-216-025-91	RES,CHIP	100	5%	1/10W
R1227	1-216-025-91	RES,CHIP	100	5%	1/10W
R1231	1-216-295-91	SHORT	0		
R1232	1-216-025-91	RES,CHIP	100	5%	1/10W
R1233	1-216-025-91	RES,CHIP	100	5%	1/10W
R1234	1-216-025-91	RES,CHIP	100	5%	1/10W
R1235	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1237	1-216-025-91	RES,CHIP	100	5%	1/10W
R1238	1-216-025-91	RES,CHIP	100	5%	1/10W
R1239	1-216-295-91	SHORT	0		
R1240	1-216-025-91	RES,CHIP	100	5%	1/10W
R1241	1-216-025-91	RES,CHIP	100	5%	1/10W
R1242	1-216-025-91	RES,CHIP	100	5%	1/10W
R1244	1-216-039-00	RES,CHIP	390	5%	1/10W
R1245	1-216-039-00	RES,CHIP	390	5%	1/10W
R1246	1-216-039-00	RES,CHIP	390	5%	1/10W
R1253	1-216-025-91	RES,CHIP	100	5%	1/10W
R1254	1-216-025-91	RES,CHIP	100	5%	1/10W
R1259	1-216-025-91	RES,CHIP	100	5%	1/10W
R1260	1-216-025-91	RES,CHIP	100	5%	1/10W
R1261	1-218-758-11	METAL CHIP	180K	0.50%	1/10W
R1262	1-216-699-11	METAL CHIP	100K	0.50%	1/10W
R1263	1-216-699-11	METAL CHIP	100K	0.50%	1/10W
R1264	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W
R1265	1-216-699-11	METAL CHIP	100K	0.50%	1/10W
R1266	1-216-025-91	RES,CHIP	100	5%	1/10W
R1267	1-216-025-91	RES,CHIP	100	5%	1/10W
R1268	1-216-081-00	RES,CHIP	22K	5%	1/10W
R1269	1-216-669-11	METAL CHIP	5.6K	0.50%	1/10W
R1270	1-216-675-11	METAL CHIP	10K	0.50%	1/10W
R1271	1-216-669-11	METAL CHIP	5.6K	0.50%	1/10W
R1272	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
R1273	1-216-025-91	RES,CHIP	100	5%	1/10W
R1274	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1275	1-216-678-11	METAL CHIP	13K	0.50%	1/10W
R1276	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1277	1-216-675-11	METAL CHIP	10K	0.50%	1/10W
R1278	1-216-675-11	METAL CHIP	10K	0.50%	1/10W
R1279	1-216-025-91	RES,CHIP	100	5%	1/10W
R1280	1-216-025-91	RES,CHIP	100	5%	1/10W
R1301	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1306	1-216-295-91	SHORT	0		
R1315	1-216-025-91	RES,CHIP	100	5%	1/10W
R1318	1-216-041-00	RES,CHIP	470	5%	1/10W
R1321	1-216-065-91	RES,CHIP	4.7K	5%	1/10W

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REF. NO.	PART.NO	DESCRIPTION			REMARK
R1324	1-216-033-00	RES,CHIP	220	5%	1/10W
R1328	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1329	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1330	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1331	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1332	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1334	1-216-089-91	RES,CHIP	47K	5%	1/10W
R1335	1-216-081-00	RES,CHIP	22K	5%	1/10W
R1336	1-216-025-91	RES,CHIP	100	5%	1/10W
R1337	1-216-025-91	RES,CHIP	100	5%	1/10W
R1338	1-216-025-91	RES,CHIP	100	5%	1/10W
R1339	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1340	1-216-133-00	RES,CHIP	3.3M	5%	1/10W
R1341	1-216-033-00	RES,CHIP	220	5%	1/10W
R1342	1-216-097-91	RES,CHIP	100K	5%	1/10W
R1343	1-216-097-91	RES,CHIP	100K	5%	1/10W
R1344	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1345	1-216-069-00	RES,CHIP	6.8K	5%	1/10W
R1346	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1347	1-216-295-91	SHORT	0		
R1348	1-216-085-00	RES,CHIP	33K	5%	1/10W
R1349	1-216-101-00	RES,CHIP	150K	5%	1/10W
R1350	1-216-025-91	RES,CHIP	100	5%	1/10W
R1351	1-216-025-91	RES,CHIP	100	5%	1/10W
R1352	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1353	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1354	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1355	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1356	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1357	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1358	1-216-025-91	RES,CHIP	100	5%	1/10W
R1359	1-216-017-91	RES,CHIP	47	5%	1/10W
R1360	1-216-041-00	RES,CHIP	470	5%	1/10W
R1361	1-216-017-91	RES,CHIP	47	5%	1/10W
R1362	1-216-041-00	RES,CHIP	470	5%	1/10W
R1392	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1393	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1394	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1395	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1396	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1397	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1398	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1399	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1400	1-216-025-91	RES,CHIP	100	5%	1/10W
R1401	1-216-025-91	RES,CHIP	100	5%	1/10W
R1402	1-216-025-91	RES,CHIP	100	5%	1/10W
R1403	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1404	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1405	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1406	1-216-025-91	RES,CHIP	100	5%	1/10W
R1407	1-216-025-91	RES,CHIP	100	5%	1/10W

REF. NO.	PART.NO	DESCRIPTION			REMARK
R1408	1-216-025-91	RES,CHIP	100	5%	1/10W
R1415	1-216-295-91	SHORT	0		
R1416	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1417	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1418	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1420	1-216-075-00	RES,CHIP	12K	5%	1/10W
R1421	1-216-033-00	RES,CHIP	220	5%	1/10W
R1422	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1433	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1434	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1435	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1436	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1437	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1452	1-216-017-91	RES,CHIP	47	5%	1/10W
R1453	1-216-017-91	RES,CHIP	47	5%	1/10W
R1454	1-216-017-91	RES,CHIP	47	5%	1/10W
R1455	1-216-017-91	RES,CHIP	47	5%	1/10W
R1462	1-216-295-91	SHORT	0		
R1801	1-216-025-91	RES,CHIP	100	5%	1/10W
R1802	1-216-025-91	RES,CHIP	100	5%	1/10W
R1803	1-216-025-91	RES,CHIP	100	5%	1/10W
R1804	1-216-025-91	RES,CHIP	100	5%	1/10W
R1805	1-216-025-91	RES,CHIP	100	5%	1/10W
R1806	1-216-025-91	RES,CHIP	100	5%	1/10W
R1807	1-216-025-91	RES,CHIP	100	5%	1/10W
R1808	1-216-025-91	RES,CHIP	100	5%	1/10W
R1809	1-216-025-91	RES,CHIP	100	5%	1/10W
R1810	1-216-025-91	RES,CHIP	100	5%	1/10W
R1811	1-216-025-91	RES,CHIP	100	5%	1/10W
R1812	1-216-025-91	RES,CHIP	100	5%	1/10W
R1813	1-216-025-91	RES,CHIP	100	5%	1/10W
R1814	1-216-025-91	RES,CHIP	100	5%	1/10W
R1815	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1816	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1817	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1818	1-216-295-91	SHORT	0		
R1819	1-216-025-91	RES,CHIP	100	5%	1/10W
R1820	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1821	1-216-025-91	RES,CHIP	100	5%	1/10W
R1823	1-216-025-91	RES,CHIP	100	5%	1/10W
R1824	1-216-025-91	RES,CHIP	100	5%	1/10W
R1825	1-216-017-91	RES,CHIP	47	5%	1/10W
R1825	1-216-025-91	RES,CHIP	100	5%	1/10W
R1826	1-216-017-91	RES,CHIP	47	5%	1/10W
R1827	1-216-025-91	RES,CHIP	100	5%	1/10W
R1828	1-216-081-00	RES,CHIP	22K	5%	1/10W
R1829	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1830	1-216-081-00	RES,CHIP	22K	5%	1/10W
R1831	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1832	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1833	1-216-049-91	RES,CHIP	1K	5%	1/10W

REF. NO.	PART.NO	DESCRIPTION			REMARK
R1834	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1835	1-216-025-91	RES,CHIP	100	5%	1/10W
R1836	1-216-643-11	METAL CHIP	470	0.50%	1/10W
R1837	1-216-633-11	METAL CHIP	180	0.50%	1/10W
R1838	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1839	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1840	1-216-295-91	SHORT	0		
R1841	1-216-025-91	RES,CHIP	100	5%	1/10W
R1842	1-216-025-91	RES,CHIP	100	5%	1/10W
R1843	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R1844	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R1845	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1846	1-216-041-00	RES,CHIP	470	5%	1/10W
R1850	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1851	1-216-025-91	RES,CHIP	100	5%	1/10W
R1853	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1854	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1855	1-216-025-91	RES,CHIP	100	5%	1/10W
R1857	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1858	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1859	1-216-025-91	RES,CHIP	100	5%	1/10W
R1861	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1862	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1863	1-216-025-91	RES,CHIP	100	5%	1/10W
R1865	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1866	1-215-863-11	METAL OXIDE	100	5%	1W F
R1868	1-216-021-00	RES,CHIP	68	5%	1/10W
R1870	1-216-295-91	SHORT	0		
R1871	1-216-025-91	RES,CHIP	100	5%	1/10W
R1872	1-216-025-91	RES,CHIP	100	5%	1/10W
R2114	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2115	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R2116	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R2117	1-216-295-91	SHORT	0		
R2118	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R2120	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R2121	1-216-295-91	SHORT	0		
R2122	1-216-089-91	RES,CHIP	47K	5%	1/10W
R2123	1-216-081-00	RES,CHIP	22K	5%	1/10W
R2124	1-247-807-31	CARBON	100	5%	1/4W
R2126	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R2128	1-216-295-91	SHORT	0		
R2131	1-216-295-91	SHORT	0		
R2134	1-216-295-91	SHORT	0		
R2135	1-216-653-11	METAL CHIP	1.2K	0.50%	1/10W
R2136	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2137	1-216-025-91	RES,CHIP	100	5%	1/10W
R2138	1-216-025-91	RES,CHIP	100	5%	1/10W
R2139	1-216-025-91	RES,CHIP	100	5%	1/10W
R2141	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2142	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2144	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2145	1-216-295-91	SHORT	0		
R2146	1-216-295-91	SHORT	0		
R2147	1-216-295-91	SHORT	0		
R2148	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R2158	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2159	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2160	1-216-675-11	METAL CHIP	10K	0.50%	1/10W
R2161	1-216-077-00	RES,CHIP	15K	5%	1/10W
R2162	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2163	1-216-071-00	RES,CHIP	8.2K	5%	1/10W
R2501	1-216-025-91	RES,CHIP	100	5%	1/10W
R2502	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2503	1-216-033-00	RES,CHIP	220	5%	1/10W
R2504	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2505	1-216-063-91	RES,CHIP	3.9K	5%	1/10W
R2506	1-216-025-91	RES,CHIP	100	5%	1/10W
R2507	1-216-025-91	RES,CHIP	100	5%	1/10W
R2508	1-216-055-00	RES,CHIP	1.8K	5%	1/10W
R2509	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
R2511	1-216-085-00	RES,CHIP	33K	5%	1/10W
R2512	1-216-695-11	METAL CHIP	68K	0.50%	1/10W
R2513	1-216-699-11	METAL CHIP	100K	0.50%	1/10W
R2515	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2516	1-216-073-00	RES,CHIP	10K	5%	1/10W
R2517	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2518	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2519	1-216-049-91	RES,CHIP	1K	5%	1/10W
R2520	1-216-683-11	METAL CHIP	22K	0.50%	1/10W
R2521	1-216-025-91	RES,CHIP	100	5%	1/10W
R2522	1-216-295-91	SHORT	0		
R2523	1-216-295-91	SHORT	0		
R2525	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3204	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3205	1-216-357-00	METAL OXIDE	4.7	5%	1W F
R3207	1-216-357-00	METAL OXIDE	4.7	5%	1W F
R3209	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3210	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3212	1-216-025-91	RES,CHIP	100	5%	1/10W
R3213	1-216-025-91	RES,CHIP	100	5%	1/10W
R3215	1-216-295-91	SHORT	0		
R3216	1-216-295-91	SHORT	0		
R3217	1-216-295-91	SHORT	0		
R3218	1-216-067-00	RES,CHIP	5.6K	5%	1/10W
R3219	1-216-097-91	RES,CHIP	100K	5%	1/10W
R3220	1-216-025-91	RES,CHIP	100	5%	1/10W
R3221	1-216-295-91	SHORT	0		
R3269	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3270	1-216-025-91	RES,CHIP	100	5%	1/10W
R3271	1-216-025-91	RES,CHIP	100	5%	1/10W
R3273	1-216-049-91	RES,CHIP	1K	5%	1/10W

A **A1**

REF. NO.	PART.NO	DESCRIPTION	REMARK
R3274	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R3301	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R3302	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R3303	1-216-091-00	RES,CHIP 56K 5% 1/10W	
R3304	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R3305	1-216-091-00	RES,CHIP 56K 5% 1/10W	
R3306	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R3307	1-216-091-00	RES,CHIP 56K 5% 1/10W	
R3308	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R3309	1-216-091-00	RES,CHIP 56K 5% 1/10W	
		<TUNER>	
TU101	1-693-339-21	TUNER/VIF	
		<CRYSTAL>	
X201	1-760-628-11	VIBRATOR, CRYSTAL	
X1105	1-760-551-21	VIBRATOR, CERAMIC	
X1107	1-760-105-11	VIBRATOR, CRYSTAL	
X2501	1-567-970-31	VIBRATOR, CRYSTAL	
**********			
*A-1632-771-A	A1 BOARD, COMPLETE		
	**********		
		<CAPACITOR>	
C101	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C102	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C103	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C104	1-163-021-91	CERAMIC CHIP 0.01MF 10%	50V
C105	1-104-664-11	ELECT 47MF 20%	25V
C106	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C107	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C108	1-126-968-11	ELECT 100MF 20%	50V
C109	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C110	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C111	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C112	1-126-968-11	ELECT 100MF 20%	50V
C113	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C114	1-104-664-11	ELECT 47MF 20%	25V
C115	1-163-021-91	CERAMIC CHIP 0.01MF 10%	50V
C116	1-126-968-11	ELECT 100MF 20%	50V
C117	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C118	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C119	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C122	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C123	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C124	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C125	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C126	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C127	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C129	1-163-038-91	CERAMIC CHIP 0.1MF	25V

REF. NO.	PART.NO	DESCRIPTION	REMARK
C130	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C131	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C132	1-163-089-00	CERAMIC CHIP 6PF 0.25PF	50V
C133	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C134	1-164-346-11	CERAMIC CHIP 1MF	16V
C135	1-163-233-11	CERAMIC CHIP 18PF 5%	50V
C136	1-163-227-11	CERAMIC CHIP 10PF 0.5PF	50V
C137	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C138	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C139	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C140	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C141	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C142	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C143	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C144	1-104-664-11	ELECT 47MF 20%	25V
C145	1-104-664-11	ELECT 47MF 20%	25V
C146	1-163-021-91	CERAMIC CHIP 0.01MF 10%	50V
C147	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C148	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C149	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C150	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C151	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C152	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C153	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C154	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C155	1-164-346-11	CERAMIC CHIP 1MF	16V
C156	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C158	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C159	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C161	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C162	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C163	1-104-664-11	ELECT 47MF 20%	25V
C164	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C165	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C166	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C167	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C168	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C169	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C170	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C171	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C172	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C173	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C174	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C175	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C176	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C177	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C178	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C179	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C180	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C181	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C182	1-163-038-91	CERAMIC CHIP 0.1MF	25V

REF. NO.	PART.NO	DESCRIPTION	REMARK
C183	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C184	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C185	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C186	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C187	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C191	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C192	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C193	1-126-968-11	ELECT 100MF 20%	50V
C194	1-126-968-11	ELECT 100MF 20%	50V
C198	1-163-038-91	CERAMIC CHIP 0.1MF	25V
		<CONNECTOR>	
CN101	1-695-300-11	CONNECTOR, BOARD TO BOARD 20P	
CN102	1-695-300-11	CONNECTOR, BOARD TO BOARD 20P	
		<DIODE>	
D101	8-719-043-11	DIODE MA3330-L-TX	
D102	8-719-812-43	DIODE TLG124A	
D103	8-719-812-43	DIODE TLG124A	
D104	8-719-031-68	DIODE HVU359TRF	
D105	8-719-058-24	DIODE RB501V-40TE-17	
D106	8-719-058-24	DIODE RB501V-40TE-17	
D107	8-719-058-24	DIODE RB501V-40TE-17	
D108	8-719-058-24	DIODE RB501V-40TE-17	
		<FERRITE BEAD>	
FB102	1-414-232-22	INDUCTOR CHIP 0UH	
FB103	1-414-232-22	INDUCTOR CHIP 0UH	
FB104	1-414-232-22	INDUCTOR CHIP 0UH	
FB105	1-414-232-22	INDUCTOR CHIP 0UH	
FB106	1-414-232-22	INDUCTOR CHIP 0UH	
FB107	1-414-232-22	INDUCTOR CHIP 0UH	
FB108	1-414-232-22	INDUCTOR CHIP 0UH	
FB109	1-414-232-22	INDUCTOR CHIP 0UH	
FB111	1-414-232-22	INDUCTOR CHIP 0UH	
FB112	1-414-232-22	INDUCTOR CHIP 0UH	
FB113	1-414-232-22	INDUCTOR CHIP 0UH	
FB114	1-414-232-22	INDUCTOR CHIP 0UH	
FB115	1-414-232-22	INDUCTOR CHIP 0UH	
FB116	1-414-232-22	INDUCTOR CHIP 0UH	
		<FILTER>	
FL101	1-239-899-21	FILTER, CHIP EMI	
FL102	1-239-899-21	FILTER, CHIP EMI	
FL103	1-239-899-21	FILTER, CHIP EMI	
FL104	1-239-899-21	FILTER, CHIP EMI	
FL105	1-239-899-21	FILTER, CHIP EMI	
		<IC>	
IC101	8-759-533-72	IC MC92307C1	
IC102	8-759-456-86	IC TC7SH14F(TE85L)	
IC103	8-759-271-86	IC TC7SH04FU	
IC104	8-759-701-39	IC NJM3404AM	
IC105	8-759-499-45	IC MC92308C1	
IC106	8-759-499-40	IC MC92309	
IC107	8-759-447-77	IC TC7WH74FU(TE12R)	
IC108	8-759-098-24	IC PQ30RV11	
IC109	8-759-447-77	IC TC7WH74FU(TE12R)	
IC111	8-759-271-86	IC TC7SH04FU	
		<COIL>	
L102	1-414-140-11	INDUCTOR 0.68UH	
L103	1-412-539-11	INDUCTOR 150UH	
		<TRANSISTOR>	
Q116	8-729-044-27	TRANSISTOR 2SC3837KT146NP	
Q117	8-729-044-27	TRANSISTOR 2SC3837KT146NP	
Q118	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q119	1-801-806-11	TRANSISTOR DTC144EKA-T146	
		<RESISTOR>	
JR101	1-216-295-91	SHORT 0	
JR102	1-216-295-91	SHORT 0	
JR105	1-216-296-91	SHORT 0	
R103	1-216-647-11	METAL CHIP 680 0.50% 1/10W	
R104	1-216-295-91	SHORT 0	
R105	1-216-295-91	SHORT 0	
R106	1-216-641-11	METAL CHIP 390 0.50% 1/10W	
R116	1-216-025-91	RES,CHIP 100 5% 1/10W	
R127	1-215-892-11	METAL OXIDE 1K 5% 2W	F
R140	1-216-081-00	RES,CHIP 22K 5% 1/10W	
R145	1-216-075-00	RES,CHIP 12K 5% 1/10W	
R146	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R149	1-216-041-00	RES,CHIP 470 5% 1/10W	
R150	1-216-009-91	RES,CHIP 22 5% 1/10W	
R155	1-216-069-00	RES,CHIP 6.8K 5% 1/10W	
R156	1-216-075-00	RES,CHIP 12K 5% 1/10W	
R157	1-216-025-91	RES,CHIP 100 5% 1/10W	
R158	1-216-025-91	RES,CHIP 100 5% 1/10W	
R159	1-216-045-00	RES,CHIP 680 5% 1/10W	
R160	1-216-031-00	RES,CHIP 180 5% 1/10W	
R161	1-216-009-91	RES,CHIP 22 5% 1/10W	
R162	1-216-295-91	SHORT 0	
R163	1-216-043-91	RES,CHIP 560 5% 1/10W	
R164	1-216-009-91	RES,CHIP 22 5% 1/10W	
R165	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R166	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R173	1-216-097-91	RES,CHIP 100K 5% 1/10W	
R175	1-216-077-00	RES,CHIP 15K 5% 1/10W	
R177	1-216-017-91	RES,CHIP 47 5% 1/10W	
R181	1-216-025-91	RES,CHIP 100 5% 1/10W	
R183	1-216-025-91	RES,CHIP 100 5% 1/10W	
R226	1-216-025-91	RES,CHIP 100 5% 1/10W	

A1 C

The components identified by shading and marked ⚠ are critical for safety
Replace only with the part number specified.

REF. NO.	PART.NO	DESCRIPTION			REMARK
R227	1-216-025-91	RES,CHIP	100	5%	1/10W
R232	1-216-009-91	RES,CHIP	22	5%	1/10W
R234	1-216-009-91	RES,CHIP	22	5%	1/10W
R235	1-216-049-91	RES,CHIP	1K	5%	1/10W
R237	1-216-107-00	RES,CHIP	270K	5%	1/10W
R238	1-216-107-00	RES,CHIP	270K	5%	1/10W
R239	1-216-049-91	RES,CHIP	1K	5%	1/10W
		<RESISTOR CHIP NETWORK>			
RB101	1-239-409-11	RES, CHIP NETWORK 47			
RB102	1-239-409-11	RES, CHIP NETWORK 47			
RB103	1-239-409-11	RES, CHIP NETWORK 47			
RB104	1-239-409-11	RES, CHIP NETWORK 47			
RB105	1-239-409-11	RES, CHIP NETWORK 47			
		<TUNER>			
TU101	8-598-484-00	FRONTEND BTD-DU601			
		<CRYSTAL>			
X101	1-781-277-11	VIBRATOR, CRYSTAL			
**********					
*A-1638-114-A	C BOARD, COMPLETE				
	**********				
	4-382-854-11	SCREW (M3X10), P, SW (+)			
		<CAPACITOR>			
C701	1-107-967-11	ELECT	1MF	20%	400V
C702	1-107-967-11	ELECT	1MF	20%	400V
C703	1-107-967-11	ELECT	1MF	20%	400V
C704	1-102-129-00	CERAMIC	0.01MF	10%	50V
C705	1-128-528-11	ELECT	470MF	20%	16V
C706	1-128-528-11	ELECT	470MF	20%	16V
C707	1-128-528-11	ELECT	470MF	20%	16V
C708	1-102-157-00	CERAMIC	560PF	10%	500V
C709	1-102-157-00	CERAMIC	560PF	10%	500V
C710	1-102-157-00	CERAMIC	560PF	10%	500V
C711	1-107-907-11	ELECT	22MF	20%	50V
C712	1-162-116-00	CERAMIC	680PF	10%	2KV
C714	1-162-116-00	CERAMIC	680PF	10%	2KV
C715	1-102-129-00	CERAMIC	0.01MF	10%	50V
C716	1-102-129-00	CERAMIC	0.01MF	10%	50V
C717	1-107-902-11	ELECT	1MF	20%	50V
C718	1-107-652-11	ELECT	10MF	20%	250V
C719	1-162-116-00	CERAMIC	680PF	10%	2KV
C727	1-136-207-11	FILM	0.047MF	10%	400V
C728	1-136-207-11	FILM	0.047MF	10%	400V
C729	1-136-207-11	FILM	0.047MF	10%	400V
C730	1-102-959-00	CERAMIC	22PF	5%	50V

REF. NO.		PART.NO	DESCRIPTION			REMARK
			<CONNECTOR>			
CN701		*1-564-511-11	PLUG, CONNECTOR 8P			
CN703		1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P			
CN704		1-695-915-11	TAB (CONTACT)			
			<DIODE>			
D701		8-719-991-33	DIODE 1SS133T-77			
D702		8-719-901-83	DIODE 1SS83			
D703		8-719-901-83	DIODE 1SS83			
D704		8-719-901-83	DIODE 1SS83			
D705		8-719-991-33	DIODE 1SS133T-77			
D706		8-719-908-03	DIODE GP08D			
D707		8-719-991-33	DIODE 1SS133T-77			
D708		8-719-923-60	DIODE MTZJ-T-77-9.1A			
D709		8-719-921-88	DIODE MTZJ-13B			
D711		8-719-911-19	DIODE 1SS119-25			
D712		8-719-911-19	DIODE 1SS119-25			
D714		8-719-982-96	DIODE MTZJ-T-77-2.2A			
D715		8-719-911-19	DIODE 1SS119-25			
D716		8-719-982-96	DIODE MTZJ-T-77-2.2A			
D721		8-719-031-34	DIODE RGP02-20EG23			
			<IC>			
IC701		8-759-360-83	IC TDA6111Q/N4			
IC702		8-759-360-83	IC TDA6111Q/N4			
IC703		8-759-360-83	IC TDA6111Q/N4			
			<JACK>			
J701	⚠	1-540-071-22	SOCKET, CRT			
			<COIL>			
L701		1-410-671-31	INDUCTOR	47UH		
L702		1-408-599-31	INDUCTOR	4.7UH		
L703		1-408-599-31	INDUCTOR	4.7UH		
L704		1-408-599-31	INDUCTOR	4.7UH		
L705		1-408-603-31	INDUCTOR	10UH		
L706		1-412-525-31	INDUCTOR	10UH		
			<TRANSISTOR>			
Q701		8-729-255-12	TRANSISTOR 2SC2551-O			
Q702		8-729-255-12	TRANSISTOR 2SC2551-O			
Q703		8-729-255-12	TRANSISTOR 2SC2551-O			
Q704		8-729-026-39	TRANSISTOR 2SA933AS-QT			
Q705		8-729-029-56	TRANSISTOR DTA144ESA			
Q706		8-729-119-78	TRANSISTOR 2SC2785-HFE			
			<RESISTOR>			
R701		1-249-420-11	CARBON	1.8K	5%	1/4W
R702		1-249-425-11	CARBON	4.7K	5%	1/4W
R703		1-249-435-11	CARBON	33K	5%	1/4W

REF. NO.	PART.NO	DESCRIPTION				REMARK
R704	1-249-429-11	CARBON	10K	5%	1/4W	
R705	1-249-430-11	CARBON	12K	5%	1/4W	
R706	1-247-863-91	CARBON	22K	5%	1/4W	
R707	1-247-863-91	CARBON	22K	5%	1/4W	
R708	1-247-863-91	CARBON	22K	5%	1/4W	
R709	1-249-415-11	CARBON	680	5%	1/4W	
R710	1-249-415-11	CARBON	680	5%	1/4W	
R711	1-249-415-11	CARBON	680	5%	1/4W	
R712	1-249-421-11	CARBON	2.2K	5%	1/4W	
R713	1-249-418-11	CARBON	1.2K	5%	1/4W	
R714	1-249-417-11	CARBON	1K	5%	1/4W	
R715	1-249-417-11	CARBON	1K	5%	1/4W	
R716	1-249-417-11	CARBON	1K	5%	1/4W	
R717	1-249-417-11	CARBON	1K	5%	1/4W	
R718	1-249-417-11	CARBON	1K	5%	1/4W	
R719	1-249-417-11	CARBON	1K	5%	1/4W	
R720	1-215-926-00	METAL OXIDE	33K	5%	3W	F
R721	1-215-926-00	METAL OXIDE	33K	5%	3W	F
R722	1-215-926-00	METAL OXIDE	33K	5%	3W	F
R723	1-249-408-11	CARBON	180	5%	1/4W	
R724	1-249-408-11	CARBON	180	5%	1/4W	
R725	1-249-408-11	CARBON	180	5%	1/4W	
R726	1-202-565-00	SOLID	470	20%	1/2W	
R727	1-202-565-00	SOLID	470	20%	1/2W	
R728	1-202-565-00	SOLID	470	20%	1/2W	
R729	1-249-424-11	CARBON	3.9K	5%	1/4W	
R730	1-249-424-11	CARBON	3.9K	5%	1/4W	
R731	1-249-424-11	CARBON	3.9K	5%	1/4W	
R732	1-202-549-00	SOLID	100	20%	1/2W	
R733	1-247-863-91	CARBON	22K	5%	1/4W	
R734	1-202-549-00	SOLID	100	20%	1/2W	
R735	1-249-416-11	CARBON	820	5%	1/4W	
R736	1-202-884-11	SOLID	820K	20%	1/2W	
R737	1-202-884-11	SOLID	820K	20%	1/2W	
R738	1-216-392-11	METAL OXIDE	1.8	5%	3W	F
R739	1-216-392-11	METAL OXIDE	1.8	5%	3W	F
R740	1-249-429-11	CARBON	10K	5%	1/4W	
R741	1-249-438-11	CARBON	56K	5%	1/4W	
R742	1-249-417-11	CARBON	1K	5%	1/4W	F
R747	1-215-911-11	METAL OXIDE	100	5%	3W	F
		<VARIABLE RESISTOR>				
RV701	1-230-641-11	RES, ADJ, METAL GLAZE 2.2M				
RV702	1-241-656-21	RES, ADJ, METAL FILM 110M				

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*A-1640-314-A D2 BOARD, COMPLETE
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		<CAPACITOR>				
C2609	1-104-664-11	ELECT	47MF	20%	25V	
C2673	1-126-967-11	ELECT	47MF	20%	50V	
C2676	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C2677	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
		<CONNECTOR>				
CN2612	*1-770-748-11	CONNECTOR, BOARD TO BOARD 12P				
		<DIODE>				
D2609	8-719-914-43	DIODE DAN202K				
D2620	8-719-914-43	DIODE DAN202K				
D2622	8-719-914-43	DIODE DAN202K				
D2624	8-719-914-43	DIODE DAN202K				
D2666	8-719-056-83	DIODE UDZ-TE-17-6.8B				
		<IC>				
IC2604	8-759-908-15	IC TL431CLP				
		<TRANSISTOR>				
Q2602	8-729-620-06	TRANSISTOR 2SC3052-EF				
Q2604	8-729-620-06	TRANSISTOR 2SC3052-EF				
Q2605	8-729-216-22	TRANSISTOR 2SA1162-G				
Q2606	8-729-620-06	TRANSISTOR 2SC3052-EF				
Q2607	8-729-620-06	TRANSISTOR 2SC3052-EF				
Q2608	8-729-216-22	TRANSISTOR 2SA1162-G				
Q2610	8-729-901-00	TRANSISTOR DTC124EK				
Q2613	8-729-900-53	TRANSISTOR DTC114EK				
Q2617	8-729-620-06	TRANSISTOR 2SC3052-EF				
Q2618	8-729-900-53	TRANSISTOR DTC114EK				
		<RESISTOR>				
R2607	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R2608	1-216-057-00	RES,CHIP	2.2K	5%	1/10W	
R2618	1-216-065-91	RES,CHIP	4.7K	5%	1/10W	
R2620	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R2623	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R2625	1-216-057-00	RES,CHIP	2.2K	5%	1/10W	
R2628	1-216-025-91	RES,CHIP	100	5%	1/10W	
R2630	1-216-025-91	RES,CHIP	100	5%	1/10W	
R2631	1-216-049-91	RES,CHIP	1K	5%	1/10W	
R2632	1-216-049-91	RES,CHIP	1K	5%	1/10W	
R2633	1-216-049-91	RES,CHIP	1K	5%	1/10W	
R2635	1-216-668-11	METAL CHIP	5.1K	0.50%	1/10W	
R2636	1-216-049-91	RES,CHIP	1K	5%	1/10W	
R2661	1-216-049-91	RES,CHIP	1K	5%	1/10W	
R2668	1-216-081-00	RES,CHIP	22K	5%	1/10W	
R2669	1-216-697-91	METAL CHIP	82K	0.50%	1/10W	
R2670	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R2671	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R2676	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	

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D1

REF. NO.	PART.NO	DESCRIPTION			REMARK
	*A-1642-236-A	D1 BOARD, COMPLETE (KV-28DS60U)			
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	*A-1642-237-A	D1 BOARD, COMPLETE (KV-32DS60U)			
		******************			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
		<CAPACITOR>			
C1501	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1502	1-107-909-11	ELECT	47MF	20%	50V
C1503	1-136-177-00	FILM	1MF	5%	50V
C1504	1-126-964-11	ELECT	10MF	20%	50V
C1505	1-126-967-11	ELECT	47MF	20%	50V
C1506	1-126-967-11	ELECT	47MF	20%	50V
C1507	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C1508	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1509	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C1510	1-136-177-00	FILM	1MF	5%	50V
C1511	1-104-329-11	CERAMIC CHIP	0.1MF	10%	50V
C1512	1-126-967-11	ELECT	47MF	20%	50V
C1513	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1514	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C1515	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C1516	1-164-182-11	CERAMIC CHIP	0.0033MF	10%	50V
C1518	1-136-479-11	FILM	0.001MF	2%	50V
C1520	1-107-909-11	ELECT	47MF	20%	50V
C1521	1-163-037-11	CERAMIC CHIP	0.022MF	10%	50V
C1522	1-104-329-11	CERAMIC CHIP	0.1MF	10%	50V
C1524	1-137-503-11	FILM	100PF	5%	100V
C1525	1-129-716-00	FILM	0.015MF	5%	630V (KV-28DS60U)
	1-136-347-11	FILM	0.0047MF	5%	630V (KV-32DS60U)
C1526	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C1528	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C1529	1-102-110-00	CERAMIC	220PF	10%	50V
C1530	1-136-189-00	FILM	0.1MF	10%	250V
C1531	1-107-906-11	ELECT	10MF	20%	50V
C1532	1-107-906-11	ELECT	10MF	20%	50V
C1533	1-126-963-11	ELECT	4.7MF	20%	50V
C1534	1-107-906-11	ELECT	10MF	20%	50V
C1535	1-107-902-11	ELECT	1MF	20%	50V
C1537	1-164-690-91	CERAMIC CHIP	0.0022MF	5%	50V
C1538	1-126-967-11	ELECT	47MF	20%	50V
C1539	1-104-664-11	ELECT	47MF	20%	25V
C1542	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C1543	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C1550	1-136-207-11	FILM	0.047MF	10%	250V
C1551	1-115-516-11	FILM	0.33MF	5%	250V (KV-28DS60U)
	1-117-451-11	FILM	0.43MF	5%	250V (KV-32DS60U)
C1553	1-107-909-11	ELECT	47MF	20%	50V
C1555	1-126-964-11	ELECT	10MF	20%	50V
C1556	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C1558	1-102-030-00	CERAMIC	330PF	10%	500V
C1560	1-162-117-00	CERAMIC	100PF	10%	500V
C1562	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1566	1-107-906-11	ELECT	10MF	20%	50V
C1567	1-164-505-11	CERAMIC CHIP	2.2MF		16V
C1568	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C1569	1-107-714-11	ELECT	10MF	20%	50V
C1570	1-115-339-11	CERAMIC CHIP	0.1MF	10%	50V
C1571	1-136-159-00	FILM	0.033MF	5%	50V
C1572	1-130-834-00	MYLAR	1MF	20%	63V (KV-28DS60U)
	1-136-165-00	FILM	0.1MF	5%	50V (KV-32DS60U)
C1573	1-136-153-00	FILM	0.01MF	5%	50V
C1574	1-104-665-11	ELECT	100MF	20%	25V
C1576	1-129-718-00	FILM	0.022MF	5%	630V (KV-28DS60U)
	1-129-716-00	FILM	0.015MF	5%	630V (KV-32DS60U)
C1577	1-136-347-11	FILM	0.0047MF	5%	630V (KV-32DS60U)
C1578	1-104-329-11	CERAMIC CHIP	0.1MF	10%	50V
C1579	1-164-492-11	CERAMIC CHIP	0.15MF	10%	16V
C1580	1-107-902-11	ELECT	1MF	20%	50V
C1587	1-164-346-11	CERAMIC CHIP	1MF		16V
C1589	1-126-959-11	ELECT	0.47MF	20%	50V
C1590	1-128-526-11	ELECT	100MF	20%	16V
C1591	1-136-165-00	FILM	0.1MF	5%	50V
C1595	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C1596	1-107-906-11	ELECT	10MF	20%	50V
C1598	1-107-909-11	ELECT	47MF	20%	50V
C1599	1-107-909-11	ELECT	47MF	20%	50V
C1601	1-137-389-11	FILM	0.0022MF	5%	100V
C1602	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C1603	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C1604	1-137-389-11	FILM	0.0022MF	5%	100V
C1605	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C1606	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C1607	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C1609	1-126-964-11	ELECT	10MF	20%	50V
C1610	1-164-505-11	CERAMIC CHIP	2.2MF		16V
C1611	1-164-505-11	CERAMIC CHIP	2.2MF		16V
C1613	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1614	1-164-505-11	CERAMIC CHIP	2.2MF		16V
		<CONNECTOR>			
CN1501	1-695-300-11	CONNECTOR, BOARD TO BOARD 20P			
CN1503	*1-564-511-61	PLUG, CONNECTOR 8P			
CN1504	1-695-300-11	CONNECTOR, BOARD TO BOARD 20P			

The components identified by shading and marked ⚠ are critical for safety
Replace only with the part number specified.

D1

REF. NO.	PART.NO	DESCRIPTION	REMARK
CN1505	*1-568-878-51	PIN, CONNECTOR 3P	
		<DIODE>	
D1502	8-719-914-43	DIODE DAN202K	
D1503	8-719-914-43	DIODE DAN202K	
D1504	8-719-914-43	DIODE DAN202K	
D1506	8-719-914-43	DIODE DAN202K	
D1509	8-719-401-32	DIODE MA3047M-TX	
D1510	8-719-914-43	DIODE DAN202K	
D1511	8-719-979-85	DIODE EGP20G	
D1512	8-719-914-43	DIODE DAN202K	
D1513	8-719-981-94	DIODE MTZJ-2.7A	
D1514	8-719-914-43	DIODE DAN202K	
D1515	8-719-914-43	DIODE DAN202K	
D1516	8-719-914-43	DIODE DAN202K	
D1524	8-719-302-43	DIODE EL1Z	
D1526	8-719-402-92	DIODE MA3220M-TX	
D1527	8-719-106-71	DIODE RD12M-B2	
D1529	8-719-947-06	DIODE RGP10JPKG23	
D1530	8-719-971-20	DIODE ERC38-06	
D1531	8-719-914-42	DIODE DA204K	
D1532	8-719-914-43	DIODE DAN202K	
D1534	8-719-914-43	DIODE DAN202K	
D1535	8-719-987-87	DIODE ERA85-009	
D1546	8-719-914-43	DIODE DAN202K	
D1547	8-719-914-43	DIODE DAN202K	
D1548	8-719-914-43	DIODE DAN202K	
D1549	8-719-110-41	DIODE RD15ESB2	
		<FERRITE BEAD>	
FB1501	1-410-397-21	FERRITE 1.1UH	
FB1502	1-410-397-21	FERRITE 1.1UH	
		<IC>	
IC1501	8-759-325-48	IC CA0005AD	
IC1502	8-759-983-69	IC LM358PS	
IC1503	8-759-988-13	IC LM393PS	
IC1504	8-759-988-13	IC LM393PS	
IC1505	8-759-988-13	IC LM393PS	
IC1506	8-759-822-38	IC LA6510	
IC1507	8-759-251-31	IC CA0007AM	
IC1508	8-759-988-13	IC LM393PS	
IC1510	8-759-185-47	IC IR2112	
IC1511	8-752-072-94	IC CXA1875AM-T4	
IC1513	8-759-604-39	IC M5F78M12L	
IC1515	8-759-983-69	IC LM358PS	
IC1517	8-759-325-48	IC CA0005AD	
IC1518	8-759-145-58	IC UPC4558C	
IC1519	8-759-983-69	IC LM358PS	
		<COIL>	
L1501	1-406-989-21	INDUCTOR 10MMH	
L1504	1-411-557-11	INDUCTOR 4.5UH	
L1507	1-406-989-21	INDUCTOR 10MMH	
L1508	1-412-537-31	INDUCTOR 100UH	
L1518	1-406-680-11	INDUCTOR 33MMH	
L1519	1-412-531-31	INDUCTOR 33UH	
		<IC LINK>	
PS1502	⚠ 1-533-590-31	LINK, IC	
		<TRANSISTOR>	
Q1501	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q1502	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1503	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1504	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1505	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q1506	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q1507	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q1508	8-729-045-54	TRANSISTOR 2SK2774-01MR-F111	
Q1509	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1510	8-729-034-09	TRANSISTOR 2SK2518-01MR	
Q1513	8-729-045-54	TRANSISTOR 2SK2774-01MR-F111	
Q1514	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1515	8-729-140-97	TRANSISTOR 2SB734-34	
Q1516	8-729-140-97	TRANSISTOR 2SB734-34	
Q1522	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1523	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q1524	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q1526	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q1527	8-729-017-06	TRANSISTOR 2SC4793	
Q1528	8-729-017-05	TRANSISTOR 2SA1837	
Q1529	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q1530	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1531	8-729-216-22	TRANSISTOR 2SA1162-G	
		<RESISTOR>	
JR1501	1-216-295-91	SHORT 0	
R1500	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R1501	1-216-089-91	RES,CHIP 47K 5% 1/10W	
R1502	1-216-081-00	RES,CHIP 22K 5% 1/10W	
R1504	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R1505	1-216-695-11	METAL CHIP 68K 0.50% 1/10W	
R1506	1-216-651-11	METAL CHIP 1K 0.50% 1/10W	
R1507	1-216-097-91	RES,CHIP 100K 5% 1/10W	
R1508	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R1509	1-216-097-91	RES,CHIP 100K 5% 1/10W	
R1510	1-216-675-11	METAL CHIP 10K 0.50% 1/10W	
R1511	1-216-699-11	METAL CHIP 100K 0.50% 1/10W	

D1

REF. NO.	PART.NO	DESCRIPTION				REMARK
R1512	1-216-059-00	RES,CHIP	2.7K	5%	1/10W	
R1513	1-216-687-11	METAL CHIP	33K	0.50%	1/10W	
R1514	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R1515	1-216-699-11	METAL CHIP	100K	0.50%	1/10W	
R1516	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R1517	1-216-049-91	RES,CHIP	1K	5%	1/10W	
R1518	1-216-041-00	RES,CHIP	470	5%	1/10W	
R1519	1-216-065-91	RES,CHIP	4.7K	5%	1/10W	
R1520	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R1522	1-216-081-00	RES,CHIP	22K	5%	1/10W	
R1523	1-216-677-11	METAL CHIP	12K	0.50%	1/10W	
R1524	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R1525	1-216-065-91	RES,CHIP	4.7K	5%	1/10W	
R1526	1-216-295-91	SHORT	0			
R1527	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R1528	1-216-681-11	METAL CHIP	18K	0.50%	1/10W	
R1529	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R1530	1-249-417-11	CARBON	1K	5%	1/4W	
R1531	1-218-754-11	METAL CHIP	120K	0.50%	1/10W	
R1532	1-216-670-11	METAL CHIP	6.2K	0.50%	1/10W	
R1533	1-216-069-00	RES,CHIP	6.8K	5%	1/10W	
R1534	1-216-699-11	METAL CHIP	100K	0.50%	1/10W	
R1535	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	(KV-28DS60U)
	1-216-677-11	METAL CHIP	12K	0.50%	1/10W	(KV-32DS60U)
R1537	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	(KV-28DS60U)
	1-216-685-11	METAL CHIP	27K	0.50%	1/10W	(KV-32DS60U)
R1538	1-216-065-91	RES,CHIP	4.7K	5%	1/10W	
R1539	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R1540	1-216-065-91	RES,CHIP	4.7K	5%	1/10W	
R1541	1-216-295-91	SHORT	0			
R1542	1-216-295-91	SHORT	0			
R1543	1-249-415-11	CARBON	680	5%	1/4W	
R1545	1-216-043-91	RES,CHIP	560	5%	1/10W	
R1547	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R1548	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R1549	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R1550	1-216-077-00	RES,CHIP	15K	5%	1/10W	
R1551	1-216-676-11	METAL CHIP	11K	0.50%	1/10W	
R1552	1-216-674-11	METAL CHIP	9.1K	0.50%	1/10W	
R1553	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R1554	1-216-061-00	RES,CHIP	3.3K	5%	1/10W	
R1555	1-216-295-91	SHORT	0			
R1556	1-216-025-91	RES,CHIP	100	5%	1/10W	
R1559	1-216-099-00	RES,CHIP	120K	5%	1/10W	
R1560	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R1561	1-216-097-91	RES,CHIP	100K	5%	1/10W	
R1562	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R1563	1-216-097-91	RES,CHIP	100K	5%	1/10W	
R1564	1-216-081-00	RES,CHIP	22K	5%	1/10W	
R1565	1-216-689-11	METAL CHIP	39K	0.50%	1/10W	
R1566	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R1567	1-216-057-00	RES,CHIP	2.2K	5%	1/10W	
R1568	1-216-677-11	METAL CHIP	12K	0.50%	1/10W	
R1569	1-216-677-11	METAL CHIP	12K	0.50%	1/10W	
R1570	1-216-081-00	RES,CHIP	22K	5%	1/10W	
R1571	1-216-059-00	RES,CHIP	2.7K	5%	1/10W	
R1572	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R1573	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R1574	1-216-059-00	RES,CHIP	2.7K	5%	1/10W	
R1575	1-216-089-91	RES,CHIP	47K	5%	1/10W	
R1576	1-216-065-91	RES,CHIP	4.7K	5%	1/10W	
R1577	1-216-059-00	RES,CHIP	2.7K	5%	1/10W	
R1578	1-216-295-91	SHORT	0			
R1579	1-216-061-00	RES,CHIP	3.3K	5%	1/10W	
R1580	1-216-049-91	RES,CHIP	1K	5%	1/10W	
R1581	1-216-049-91	RES,CHIP	1K	5%	1/10W	
R1583	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R1584	1-216-049-91	RES,CHIP	1K	5%	1/10W	
R1587	1-216-079-00	RES,CHIP	18K	5%	1/10W	
R1588	1-216-057-00	RES,CHIP	2.2K	5%	1/10W	
R1589	1-216-049-91	RES,CHIP	1K	5%	1/10W	
R1590	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R1593	1-216-055-00	RES,CHIP	1.8K	5%	1/10W	
R1595	1-216-295-91	SHORT	0			
R1597	1-216-097-91	RES,CHIP	100K	5%	1/10W	
R1598	1-216-083-00	RES,CHIP	27K	5%	1/10W	
R1599	1-216-089-91	RES,CHIP	47K	5%	1/10W	
R1600	1-249-441-11	CARBON	100K	5%	1/4W	
R1602	1-216-097-91	RES,CHIP	100K	5%	1/10W	
R1604	1-260-323-71	CARBON	390	5%	1/2W	
R1606	1-216-033-00	RES,CHIP	220	5%	1/10W	
R1607	1-216-049-91	RES,CHIP	1K	5%	1/10W	
R1608	1-216-025-91	RES,CHIP	100	5%	1/10W	
R1609	1-216-025-91	RES,CHIP	100	5%	1/10W	
R1610	1-216-025-91	RES,CHIP	100	5%	1/10W	
R1611	1-216-049-91	RES,CHIP	1K	5%	1/10W	
R1612	1-216-049-91	RES,CHIP	1K	5%	1/10W	
R1613	1-249-385-11	CARBON	2.2	5%	1/4W	F
R1614	1-240-265-11	CMT,MELF	2.7	5%	10W	(KV-28DS60U)
	1-240-581-11	REGISTER	0			(KV-32DS60U)
R1615	1-240-265-11	CMT,MELF	2.7	5%	10W	(KV-28DS60U)
	1-240-581-11	REGISTER	0			(KV-32DS60U)
R1616	1-216-089-91	RES,CHIP	47K	5%	1/10W	
R1618	1-216-101-00	RES,CHIP	150K	5%	1/10W	
R1619	1-216-695-11	METAL CHIP	68K	0.50%	1/10W	
R1620	1-216-695-11	METAL CHIP	68K	0.50%	1/10W	
R1621	1-216-669-11	METAL CHIP	5.6K	0.50%	1/10W	
R1622	1-216-069-00	RES,CHIP	6.8K	5%	1/10W	
R1623	1-216-085-00	RES,CHIP	33K	5%	1/10W	
R1624	1-216-295-91	SHORT	0			
R1627	1-216-681-11	METAL CHIP	18K	0.50%	1/10W	
R1628	1-218-762-11	METAL CHIP	270K	0.50%	1/10W	

REF. NO.	PART.NO	DESCRIPTION				REMARK
R1629	1-218-774-11	METAL CHIP	820K	0.50%	1/10W	
R1630	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W	(KV-28DS60U)
	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W	(KV-32DS60U)
R1631	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R1632	1-216-677-11	METAL CHIP	12K	0.50%	1/10W	
R1633	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R1635	1-216-047-91	RES,CHIP	820	5%	1/10W	
R1636	1-216-057-00	RES,CHIP	2.2K	5%	1/10W	
R1637	1-216-033-00	RES,CHIP	220	5%	1/10W	
R1639	1-215-911-11	METAL OXIDE	100	5%	3W	(KV-28DS60U)
	1-216-474-11	METAL OXIDE	82	5%	3W	(KV-32DS60U)
R1640	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R1641	1-216-677-11	METAL CHIP	12K	0.50%	1/10W	(KV-28DS60U)
	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	(KV-32DS60U)
R1642	1-216-057-00	RES,CHIP	2.2K	5%	1/10W	
R1643	1-216-033-00	RES,CHIP	220	5%	1/10W	
R1646	1-218-762-11	METAL CHIP	270K	0.50%	1/10W	
R1647	1-218-760-11	METAL CHIP	220K	0.50%	1/10W	(KV-32DS60U)
R1649	1-216-689-11	METAL CHIP	39K	0.50%	1/10W	
R1650	1-216-688-11	METAL CHIP	36K	0.50%	1/10W	(KV-28DS60U)
	1-216-689-11	METAL CHIP	39K	0.50%	1/10W	(KV-32DS60U)
R1653	1-216-057-00	RES,CHIP	2.2K	5%	1/10W	
R1654	1-215-898-11	METAL OXIDE	10K	5%	2W	
R1655	1-216-105-91	RES,CHIP	220K	5%	1/10W	
R1656	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R1657	1-215-880-00	METAL OXIDE	10	5%	2W	
R1658	1-249-385-11	CARBON	2.2	5%	1/4W	
R1659	1-216-063-91	RES,CHIP	3.9K	5%	1/10W	
R1660	1-216-295-91	SHORT	0			
R1661	1-216-295-91	SHORT	0			
R1663	1-216-485-11	METAL OXIDE	5.6K	5%	3W	
R1664	1-215-922-11	METAL OXIDE	6.8K	5%	3W	(KV-28DS60U)
	1-216-485-11	METAL OXIDE	5.6K	5%	3W	(KV-32DS60U)
R1665	1-215-922-11	METAL OXIDE	6.8K	5%	3W	(KV-28DS60U)
	1-216-485-11	METAL OXIDE	5.6K	5%	3W	(KV-32DS60U)
R1666	1-218-762-11	METAL CHIP	270K	0.50%	1/10W	(KV-32DS60U)
R1667	1-216-101-00	RES,CHIP	150K	5%	1/10W	
R1668	1-216-049-91	RES,CHIP	1K	5%	1/10W	
R1669	1-216-049-91	RES,CHIP	1K	5%	1/10W	
R1670	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R1671	1-216-077-00	RES,CHIP	15K	5%	1/10W	
R1672	1-216-067-00	RES,CHIP	5.6K	5%	1/10W	
R1673	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R1674	1-216-053-00	RES,CHIP	1.5K	5%	1/10W	
R1675	1-240-265-11	CMT,MELF	2.7	5%	10W	(KV-28DS60U)
	1-240-581-11	REGISTER	0	(KV-32DS60U)		
R1687	1-216-485-11	METAL OXIDE	5.6K	5%	3W	
R1688	1-240-265-11	CMT,MELF	2.7	5%	10W	(KV-28DS60U)
	1-240-581-11	REGISTER	0			(KV-32DS60U)
R1692	1-216-097-91	RES,CHIP	100K	5%	1/10W	
R1695	1-216-101-00	RES,CHIP	150K	5%	1/10W	

REF. NO.	PART.NO	DESCRIPTION				REMARK
R1696	1-216-097-91	RES,CHIP	100K	5%	1/10W	
R1697	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R1698	1-216-061-00	RES,CHIP	3.3K	5%	1/10W	
R1699	1-216-077-00	RES,CHIP	15K	5%	1/10W	
R1700	1-216-085-00	RES,CHIP	33K	5%	1/10W	
R1701	1-216-089-91	RES,CHIP	47K	5%	1/10W	
R1702	1-216-081-00	RES,CHIP	22K	5%	1/10W	
R1703	1-216-055-00	RES,CHIP	1.8K	5%	1/10W	
R1704	1-216-057-00	RES,CHIP	2.2K	5%	1/10W	
R1705	1-216-065-91	RES,CHIP	4.7K	5%	1/10W	
R1708	1-216-101-00	RES,CHIP	150K	5%	1/10W	(KV-28DS60U)
	1-216-105-91	RES,CHIP	220K	5%	1/10W	(KV-32DS60U)
R1709	1-216-061-00	RES,CHIP	3.3K	5%	1/10W	
R1711	1-216-069-00	RES,CHIP	6.8K	5%	1/10W	
R1713	1-216-081-00	RES,CHIP	22K	5%	1/10W	
R1714	1-216-081-00	RES,CHIP	22K	5%	1/10W	
R1715	1-216-051-00	RES,CHIP	1.2K	5%	1/10W	
R1716	1-216-089-91	RES,CHIP	47K	5%	1/10W	
R1717	1-216-057-00	RES,CHIP	2.2K	5%	1/10W	
R1719	1-216-101-00	RES,CHIP	150K	5%	1/10W	
R1720	1-216-079-00	RES,CHIP	18K	5%	1/10W	
R1721	1-216-065-91	RES,CHIP	4.7K	5%	1/10W	
R1728	1-216-081-00	RES,CHIP	22K	5%	1/10W	
R1730	1-216-091-00	RES,CHIP	56K	5%	1/10W	
R1731	1-216-025-91	RES,CHIP	100	5%	1/10W	
R1732	1-216-025-91	RES,CHIP	100	5%	1/10W	
R1733	1-216-125-00	RES,CHIP	1.5M	5%	1/10W	
R1734	1-216-125-00	RES,CHIP	1.5M	5%	1/10W	
R1735	1-216-069-00	RES,CHIP	6.8K	5%	1/10W	
R1736	1-216-085-00	RES,CHIP	33K	5%	1/10W	
R1739	1-216-295-91	SHORT	0			
R1743	1-216-055-00	RES,CHIP	1.8K	5%	1/10W	

<VARIABLE RESISTOR>

RV1502	1-241-765-11	RES, ADJ, CARBON 22K	
RV1503	1-241-765-11	RES, ADJ, CARBON 22K	
RV1504	1-241-765-11	RES, ADJ, CARBON 22K	

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*A-1642-235-A	D BOARD, COMPLETE (KV-28DS60U)	
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*A-1642-238-A	D BOARD, COMPLETE (KV-32DS60U)	
	**********	
4-200-399-01	SPACER, IC	
4-201-023-01	SPACER, INSULATING	
4-202-373-01	SPRING, IC	
4-309-378-00	WASHER	
4-382-854-11	SCREW (M3X10), P, SW (+)	

<CAPACITOR>

C501	1-123-024-21	ELECT	33MF	160V

The components identified by shading and marked ⚠ are critical for safety
Replace only with the part number specified.

D

REF. NO.		PART.NO	DESCRIPTION			REMARK
C502		1-136-207-11	FILM	0.047MF	10%	250V
C503		1-128-527-11	ELECT	330MF	20%	25V
C504		1-128-527-11	ELECT	330MF	20%	25V
C505		1-102-212-00	CERAMIC	820PF	10%	500V
C507		1-162-115-00	CERAMIC	330PF	10%	2KV
						(KV-32DS60U)
C508		1-162-116-00	CERAMIC	680PF	10%	2KV
C509		1-162-116-00	CERAMIC	680PF	10%	2KV
C510		1-136-558-11	FILM	0.0039MF	10%	400V
C511		1-117-846-11	FILM	18000PF	3%	1.5KV
						(KV-28DS60U)
		1-113-582-11	FILM	0.017MF	3%	2KV
						(KV-32DS60U)
C512		1-129-717-00	FILM	0.018MF	5%	630V
C513		1-115-177-11	FILM	6.8MF	5%	160V
C514		1-137-043-11	FILM	0.0047MF	10%	400V
C516		1-109-837-11	FILM	0.56MF	5%	400V
						(KV-28DS60U)
		1-115-517-11	FILM	0.39MF	5%	250V
						(KV-32DS60U)
C519		1-104-696-11	FILM	0.015MF	10%	250V
C521		1-102-002-00	CERAMIC	680PF	10%	500V
C525		1-107-906-11	ELECT	10MF	20%	50V
C528		1-102-030-00	CERAMIC	330PF	10%	500V
C535		1-107-655-11	ELECT	47MF	20%	250V
C536		1-102-228-00	CERAMIC	470PF	10%	500V
C537		1-102-228-00	CERAMIC	470PF	10%	500V
C538		1-102-228-00	CERAMIC	470PF	10%	500V
C541		1-106-375-12	MYLAR	0.022MF	10%	250V
C548		1-162-131-11	CERAMIC	220PF	10%	2KV
C549		1-162-129-00	CERAMIC	150PF	10%	2KV
C552		1-126-968-11	ELECT	100MF	20%	50V
C554		1-102-129-00	CERAMIC	0.01MF	10%	50V
C555		1-126-941-11	ELECT	470MF	20%	25V
C556		1-102-129-00	CERAMIC	0.01MF	10%	50V
C557		1-126-941-11	ELECT	470MF	20%	25V
C560		1-106-228-00	MYLAR	0.22MF	10%	100V
C561		1-106-220-00	MYLAR	0.1MF	10%	100V
C562		1-130-785-11	MYLAR	0.47MF	10%	100V
C573		1-162-115-00	CERAMIC	330PF	10%	2KV
C574		1-136-347-11	FILM	0.0047MF	5%	630V
						(KV-28DS60U)
		1-136-557-11	FILM	0.0033MF	5%	630V
						(KV-32DS60U)
C576		1-129-702-00	FILM	0.001MF	10%	400V
C580		1-102-030-00	CERAMIC	330PF	10%	500V
C581		1-136-205-11	FILM	0.022MF	10%	400V
C582		1-129-898-00	FILM	0.0022MF	5%	630V
C583		1-130-785-11	MYLAR	0.47MF	10%	100V
C584		1-104-696-11	FILM	0.015MF	10%	250V
C601		1-126-965-11	ELECT	22MF	20%	50V
C603	⚠	1-136-415-51	FILM	0.33MF	20%	300V
C604		1-164-625-11	CERAMIC	680PF	10%	500V
C606	⚠	1-162-599-12	CERAMIC	0.0047MF		250V
C607	⚠	1-161-744-00	CERAMIC	0.01MF		400V
						(KV-32DS60U)
C610		1-162-599-12	CERAMIC	0.0047MF		250V
C611	⚠	1-161-744-00	CERAMIC	0.01MF		400V
C613		1-162-599-12	CERAMIC	0.0047MF		250V
C614		1-164-645-11	CERAMIC	1000PF	10%	500V
C616		1-117-753-11	ELECT(BLOCK)	470MF	20%	450V
C618		1-137-194-81	FILM	0.47MF	5%	50V
C619		1-117-976-11	FILM	0.039MF	5%	800V
C620		1-136-171-00	FILM	0.33MF	5%	50V
C621		1-136-171-00	FILM	0.33MF	5%	50V
C622		1-137-194-81	FILM	0.47MF	5%	50V
C623		1-126-968-11	ELECT	100MF	20%	50V
C625		1-128-548-11	ELECT	4700MF	20%	25V
C626		1-128-548-11	ELECT	4700MF	20%	25V
C627		1-126-936-11	ELECT	3300MF	20%	16V
C628		1-126-943-11	ELECT	2200MF	20%	25V
C629		1-110-626-11	ELECT	330MF	20%	160V
C630		1-102-129-00	CERAMIC	0.01MF	10%	50V
C631		1-102-129-00	CERAMIC	0.01MF	10%	50V
C633		1-137-368-11	FILM	0.0047MF	5%	50V
C634		1-106-351-00	MYLAR	0.0022MF	99%	200V
C639		1-164-625-11	CERAMIC	680PF	10%	500V
C640		1-137-194-81	FILM	0.47MF	5%	50V
C642		1-128-579-11	ELECT	2.2MF	20%	100V
C643		1-117-802-11	ELECT	180MF	20%	450V
C644		1-107-824-11	CERAMIC	220PF	5%	1KV
C645		1-136-169-00	FILM	0.22MF	5%	50V
C646		1-136-164-00	FILM	0.082MF	5%	50V
C647		1-107-824-11	CERAMIC	220PF	5%	1KV
C648		1-136-169-00	FILM	0.22MF	5%	50V
C649		1-136-164-00	FILM	0.082MF	5%	50V
C650		1-117-631-21	FILM	3300PF	3%	1.2KV
C651		1-136-157-00	FILM	0.022MF	5%	50V
C652		1-136-165-00	FILM	0.1MF	5%	50V
C653		1-126-965-11	ELECT	22MF	20%	50V
C654		1-126-967-11	ELECT	47MF	20%	50V
C655		1-126-941-11	ELECT	470MF	20%	25V
C656		1-126-967-11	ELECT	47MF	20%	50V
C657		1-126-967-11	ELECT	47MF	20%	50V
C659		1-126-936-11	ELECT	3300MF	20%	16V
C660		1-126-936-11	ELECT	3300MF	20%	16V
C661		1-126-935-11	ELECT	470MF	20%	16V
C662		1-126-935-11	ELECT	470MF	20%	16V
C663	⚠	1-113-920-11	CERAMIC	0.0022MF	20%	250V
C664	⚠	1-113-920-11	CERAMIC	0.0022MF	20%	250V
C671		1-107-906-11	ELECT	10MF	20%	50V
C672		1-136-165-00	FILM	0.1MF	5%	50V
C674		1-164-625-11	CERAMIC	680PF	10%	500V

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REF. NO.	PART.NO	DESCRIPTION	REMARK
C675	1-164-625-11	CERAMIC 680PF 10% 500V	
C683	1-126-965-11	ELECT 22MF 20% 50V	
C684	1-126-940-11	ELECT 330MF 20% 25V	
C685	1-107-824-11	CERAMIC 220PF 5% 1KV	
		<CONNECTOR>	
CN502	*1-580-798-11	CONNECTOR PIN (DY) 6P	
CN505	1-695-297-11	CONNECTOR, BOARD TO BOARD 20P	
CN507	1-568-878-51	PIN, CONNECTOR 3P	
CN509	1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P	
CN511	1-695-297-11	CONNECTOR, BOARD TO BOARD 20P	
CN512	1-568-878-51	PIN, CONNECTOR 3P	
CN601 * ⚠	1-691-291-11	PIN, CONNECTOR (PC BOARD) 5P	
CN604 * ⚠	1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P	
CN605 ⚠	1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	(KV-32DS60U)
CN606 ⚠	1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	
CN607	*1-568-881-51	PIN, CONNECTOR 6P	
CN612	*1-770-747-11	CONNECTOR, BOARD TO BOARD 12P	
		<DIODE>	
D501	8-719-987-84	DIODE ERB8-04	
D502	8-719-979-99	DIODE ERD08M-15	
D503	8-719-052-09	DIODE FMG-36S-LF024-104	
D504	8-719-987-84	DIODE ERB8-04	
D505	8-719-908-03	DIODE GP08D	
D506	8-719-908-03	DIODE GP08D	
D510	8-719-979-85	DIODE EGP20G	
D511	8-719-302-43	DIODE EL1Z	
D512	8-719-052-90	DIODED1NL40-TA2	
D513	8-719-052-90	DIODED1NL40-TA2	
D514	8-719-908-03	DIODE GP08D	
D516	8-719-110-41	DIODE RD15ESB2	
D520	8-719-970-87	DIODE ERA38-06	
D521	8-719-970-87	DIODE ERA38-06	
D600	8-719-911-19	DIODE 1SS119-25	
D601	8-719-510-35	DIODE 2SBA60F	
D603	8-719-510-53	DIODE D4SB60L	
D607	8-719-991-33	DIODE 1SS133T-77	
D608	8-719-063-73	DIODED1NL20U-TR	
D610	8-719-047-31	DIODE RBA-402L	
D611	8-719-510-12	DIODE D10SC4M	
D612	8-719-510-12	DIODE D10SC4M	
D613	8-719-500-71	DIODE D8LC40	
D614	8-719-911-19	DIODE 1SS119-25	
D615	8-719-063-73	DIODE D1NL20U-TR	
D616	8-719-063-73	DIODE D1NL20U-TR	
D617	8-719-991-33	DIODE 1SS133T-77	
D618	8-719-911-19	DIODE 1SS119-25	
D619	8-719-110-57	DIODE RD22ESB2	
D620	8-719-160-65	DIODE RD16FB2	
D621	8-719-991-33	DIODE 1SS133T-77	
D659	8-719-911-19	DIODE 1SS119-25	
D660	8-719-982-27	DIODE MTZJ-33C	
D661	8-719-991-33	DIODE 1SS133T-77	
D662	8-719-991-33	DIODE 1SS133T-77	
D663	8-719-991-33	DIODE 1SS133T-77	
D664	8-719-911-19	DIODE 1SS119-25	
D665	8-719-911-19	DIODE 1SS119-25	
D667	8-719-911-19	DIODE 1SS119-25	
D668	8-719-109-89	DIODE RD5.6ESB2	
D669	8-719-510-12	DIODE D10SC4M	
D670	8-719-040-01	DIODE FMB-22H	
D671	8-719-040-01	DIODE FMB-22H	
		<FERRITE BEAD>	
FB600	1-410-396-41	FERRITE 0.45UH	
FB601	1-410-396-41	FERRITE 0.45UH	
		<IC>	
IC502	8-759-192-71	IC STV9379	
IC601	8-749-010-64	PHOTO COUPLER PC123F2	
IC602	8-729-043-26	TRANSISTOR MX0841T-F	
IC603	1-810-050-11	POWER MODULE DM-47	
IC605	8-729-045-61	TRANSISTOR MX0542AB-F	
IC606	8-759-908-15	IC TL431CLP	
		<COIL>	
L507	1-412-524-11	INDUCTOR 8.2UH	
L511	1-459-104-00	COIL, WITH CORE	
L516	1-408-947-00	INDUCTOR 2.2MMH	
L521	1-416-675-21	INDUCTOR 3.3UH	
L523	1-416-447-11	COIL (WITH CORE) (PMC)	(KV-28DS60U)
	1-416-448-11	COIL (WITH CORE) (PMC)	(KV-32DS60U)
L601	1-414-489-41	INDUCTOR 2.7UH	
L603	1-406-658-21	INDUCTOR 6.8UH	
L604	1-406-658-21	INDUCTOR 6.8UH	
L605	1-414-489-41	INDUCTOR 2.7UH	
L607	1-412-525-31	INDUCTOR 10UH	
L608	1-412-525-31	INDUCTOR 10UH	
L610	1-412-525-31	INDUCTOR 10UH	
L614	1-412-525-31	INDUCTOR 10UH	
L615	1-412-525-31	INDUCTOR 10UH	
		<IC LINK>	
PS601 ⚠	1-801-550-21	PROTECTOR MODULE 2.5A	MP250
PS602 ⚠	1-533-597-31	LINK, IC	
PS603 ⚠	1-801-550-21	PROTECTOR MODULE 2.5A	MP250
PS604 ⚠	1-801-550-21	PROTECTOR MODULE 2.5A	MP250
PS605 ⚠	1-801-550-21	PROTECTOR MODULE 2.5A	MP250
PS606 ⚠	1-801-550-21	PROTECTOR MODULE 2.5A	MP250
PS607 ⚠	1-532-637-11	LINK, IC 1A	ICP-F25
PS608 ⚠	1-801-549-21	PROTECTOR MODULE	

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REF. NO.	PART.NO	DESCRIPTION				REMARK
		<TRANSISTOR>				
Q501	8-729-119-80	TRANSISTOR 2SC2688-LK				
Q502	8-729-821-07	TRANSISTOR 2SC3997CA				
Q504	8-729-039-68	TRANSISTOR IRF620				
Q505	8-729-043-95	TRANSISTOR 2SC3840(3)				
Q601	8-729-026-39	TRANSISTOR 2SA933AS-QT				
Q609	8-729-029-56	TRANSISTOR DTA144ESA				
Q611	8-729-029-56	TRANSISTOR DTA144ESA				
Q612	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q614	8-729-026-39	TRANSISTOR 2SA933AS-QT				
Q615	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q619	8-729-119-78	TRANSISTOR 2SC2785-HFE				
		<RESISTOR>				
R503	1-216-481-11	METAL OXIDE	1.2K	5%	3W	F
R505	1-216-487-11	METAL OXIDE	12K	5%	3W	F
R506	1-249-411-11	CARBON	330	5%	1/4W	
R507	1-247-843-11	CARBON	3.3K	5%	1/4W	
R509	1-215-905-11	METAL OXIDE	10	5%	3W	F
R510	1-215-911-11	METAL OXIDE	100	5%	3W	F
R511	1-216-434-11	METAL OXIDE	1.8K	5%	1W	F
R517	1-202-972-61	FUSIBLE	1	5%	1/4W	F
R518	1-249-377-11	CARBON	0.47	5%	1/4W	F
R519	1-260-288-11	CARBON	0.47	5%	1/2W	
R520	1-214-907-00	METAL	56K	1%	1/2W	
R533	1-249-417-11	CARBON	1K	5%	1/4W	
R534	1-249-441-11	CARBON	100K	5%	1/4W	
R535	1-249-441-11	CARBON	100K	5%	1/4W	
R536	1-249-441-11	CARBON	100K	5%	1/4W	
R543	1-215-894-11	METAL OXIDE	2.2K	5%	2W	F
R544	1-249-424-11	CARBON	3.9K	5%	1/4W	
R545	1-247-881-00	CARBON	120K	5%	1/4W	
R550	1-249-383-11	CARBON	1.5	5%	1/4W	F
R554	1-215-449-00	METAL	15K	1%	1/4W	
R555	1-214-798-21	METAL	1.8	1%	1/2W	
R557	1-215-894-11	METAL OXIDE	2.2K	5%	2W	F
R559	1-215-438-00	METAL	5.1K	1%	1/4W	
R560	1-247-843-11	CARBON	3.3K	5%	1/4W	
R561	1-215-373-31	METAL	10	1%	1/4W	
R562	1-249-383-11	CARBON	1.5	5%	1/4W	F
R563	1-215-888-00	METAL OXIDE	220	5%	2W	F
R565	1-215-449-00	METAL	15K	1%	1/4W	
R566	1-215-438-00	METAL	5.1K	1%	1/4W	
R567	1-214-798-21	METAL	1.8	1%	1/2W	
R568	1-249-418-11	CARBON	1.2K	5%	1/4W	
R571	1-215-917-11	METAL OXIDE	1K	5%	3W	(KV-28DS60U)
	1-216-481-11	METAL OXIDE	1.2K	5%	3W	(KV-32DS60U)

REF. NO.	PART.NO	DESCRIPTION				REMARK
R602	1-217-418-00	FUSIBLE	0.47	10%	1/2W	F
R603	1-260-127-11	CARBON	220K	5%	1/2W	
R604	1-260-127-11	CARBON	220K	5%	1/2W	
R605	1-249-391-11	CARBON	6.8	5%	1/4W	
R607	1-260-127-11	CARBON	220K	5%	1/2W	
R608	1-260-127-11	CARBON	220K	5%	1/2W	
R609	1-249-417-11	CARBON	1K	5%	1/4W	F
R610	1-260-129-11	CARBON	330K	5%	1/2W	
R611	1-260-129-11	CARBON	330K	5%	1/2W	
R612	1-216-369-00	METAL OXIDE	1	5%	2W	F
R613	1-207-905-00	WIREWOUND	0.27	10%	2W	F
R614	1-260-129-11	CARBON	330K	5%	1/2W	
R615	1-260-129-11	CARBON	330K	5%	1/2W	
R616	1-216-369-00	METAL OXIDE	1	5%	2W	F
R624	1-247-895-91	CARBON	470K	5%	1/4W	
R626	1-249-429-11	CARBON	10K	5%	1/4W	
R629	1-249-425-11	CARBON	4.7K	5%	1/4W	
R634	1-215-479-00	METAL	270K	1%	1/4W	
R638	1-215-927-00	METAL OXIDE	47K	5%	3W	F
R639	1-249-429-11	CARBON	10K	5%	1/4W	
R640	1-202-933-61	FUSIBLE	0.1	10%	1/2W	F
R642	1-249-429-11	CARBON	10K	5%	1/4W	
R643	1-249-443-11	CARBON	0.47	5%	1/4W	F
R645	1-249-393-11	CARBON	10	5%	1/4W	F
R647	1-249-391-11	CARBON	6.8	5%	1/4W	
R648	1-249-437-11	CARBON	47K	5%	1/4W	
R649	1-215-429-00	METAL	2.2K	1%	1/4W	
R650	1-249-425-11	CARBON	4.7K	5%	1/4W	
R651	1-215-927-00	METAL OXIDE	47K	5%	3W	F
R657	1-260-127-11	CARBON	220K	5%	1/2W	
R658	1-249-416-11	CARBON	820	5%	1/4W	
R659	1-260-131-11	CARBON	470K	5%	1/2W	
R660	1-249-429-11	CARBON	10K	5%	1/4W	
R662	1-249-410-11	CARBON	270	5%	1/4W	
R663	1-215-926-00	METAL OXIDE	33K	5%	3W	F
R673	1-249-417-11	CARBON	1K	5%	1/4W	
R674	1-249-417-11	CARBON	1K	5%	1/4W	
R677	1-249-436-11	CARBON	39K	5%	1/4W	
R678	1-215-859-00	METAL OXIDE	22	5%	1W	F
R679	1-215-859-00	METAL OXIDE	22	5%	1W	F
R680	1-249-417-11	CARBON	1K	5%	1/4W	
R681	1-215-428-00	METAL	2K	1%	1/4W	
R682	1-249-430-11	CARBON	12K	5%	1/4W	
R683	1-249-417-11	CARBON	1K	5%	1/4W	F
R685	1-249-429-11	CARBON	10K	5%	1/4W	
R686	1-249-377-11	CARBON	0.47	5%	1/4W	F
R687	1-249-417-11	CARBON	1K	5%	1/4W	
R689	1-249-429-11	CARBON	10K	5%	1/4W	
R690	1-247-807-31	CARBON	100	5%	1/4W	

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D **VM**

REF. NO.		PART.NO	DESCRIPTION				REMARK
			<RELAY>				
RY600	⚠	1-755-178-11	RELAY, AC POWER				
RY601	⚠	1-755-018-11	RELAY				
			<TRANSFORMER>				
T501		1-427-762-11	TRANSFORMER, FERRITE (HDT)				
T504		1-431-599-11	TRANSFORMER, HORIZONTAL LINEAR (KV-28DS60U)				
		1-431-600-11	TRANSFORMER, HORIZONTAL LINEAR (KV-32DS60U)				
T505	⚠	X-4560-138-1	FBT ASSY, NX-4602/J1B4				
T507		1-426-896-11	TRANSFORMER, FERRITE (DFT)				
T600	⚠	1-431-616-11	TRANSFORMER, CONVERTER				
T601	⚠	1-433-491-11	TRANSFORMER, CONVERTER (PIT)				
T602	⚠	1-431-616-11	TRANSFORMER, CONVERTER				
T603	⚠	1-433-490-11	TRANSFORMER, CONVERTER (PIT)				
			<THERMISTOR>				
TH501		1-800-193-00	THERMISTOR				
THP600	⚠	1-809-827-11	THERMISTOR, POSITIVE				
**********							
		*A-1644-092-A	VM BOARD, COMPLETE				
			**********				
		4-382-854-11	SCREW (M3X10), P, SW (+)				
			<CAPACITOR>				
C1701		1-107-883-11	ELECT	330MF	20%	16V	
C1702		1-137-370-11	FILM	0.01MF	5%	50V	
C1703		1-126-935-11	ELECT	470MF	20%	16V	
C1704		1-126-935-11	ELECT	470MF	20%	6.3V	
C1706		1-126-933-11	ELECT	100MF	20%	16V	
C1707		1-126-935-11	ELECT	470MF	20%	6.3V	
C1708		1-104-989-91	FILM	0.0022MF	5%	200V	
C1709		1-104-989-91	FILM	0.0022MF	5%	200V	
C1710		1-107-649-11	ELECT	2.2MF	20%	250V	
C1711		1-130-471-00	FILM	0.001MF	5%	50V	
C1712		1-130-471-00	FILM	0.001MF	5%	50V	
C1713		1-126-933-11	ELECT	100MF	20%	16V	
C1714		1-107-363-91	FILM	0.0068MF	10%	200V	
C1715		1-126-933-11	ELECT	100MF	20%	16V	
C1717		1-162-117-00	CERAMIC	100PF	10%	500V	
C1718		1-102-106-00	CERAMIC	100PF	10%	50V	
C1719		1-101-880-00	CERAMIC	47PF	5%	50V	
C1720		1-107-652-11	ELECT	10MF	20%	200V	
			<CONNECTOR>				
CN1701		*1-568-878-51	PIN, CONNECTOR 3P				
CN1702		*1-564-511-11	PLUG, CONNECTOR 8P				
CN1703		*1-770-747-11	CONNECTOR, BOARD TO BOARD 12P				
CN1705		1-695-915-11	TAB (CONTACT)				
			<DIODE>				
D1701		8-719-991-33	DIODE 1SS133T-77				
D1702		8-719-510-02	DIODE D1NS4				
D1703		8-719-991-33	DIODE 1SS133T-77				
D1704		8-719-991-33	DIODE 1SS133T-77				
D1705		8-719-991-33	DIODE 1SS133T-77				
D1706		8-719-924-11	DIODE MTZJ-T-77-22				
D1707		8-719-924-11	DIODE MTZJ-T-77-22				
			<FERRITE BEAD>				
FB1701		1-410-396-41	FERRITE	0.45UH			
FB1702		1-410-397-21	FERRITE	1.1UH			
			<TRANSISTOR>				
Q1701		8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1702		8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1703		8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1704		8-729-026-39	TRANSISTOR 2SA933AS-QT				
Q1705		8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q1706		8-729-026-39	TRANSISTOR 2SA933AS-QT				
Q1707		8-729-017-05	TRANSISTOR 2SA1837				
Q1708		8-729-017-06	TRANSISTOR 2SC4793				
			<RESISTOR>				
R1701		1-249-401-11	CARBON	47	5%	1/4W	
R1702		1-249-421-11	CARBON	2.2K	5%	1/4W	
R1704		1-249-425-11	CARBON	4.7K	5%	1/4W	
R1705		1-249-413-11	CARBON	470	5%	1/4W	
R1706		1-249-393-11	CARBON	10	5%	1/4W	F
R1707		1-249-399-11	CARBON	33	5%	1/4W	
R1708		1-247-807-31	CARBON	100	5%	1/4W	
R1709		1-249-417-11	CARBON	1K	5%	1/4W	
R1710		1-247-815-91	CARBON	220	5%	1/4W	
R1711		1-249-401-11	CARBON	47	5%	1/4W	
R1712		1-249-401-11	CARBON	47	5%	1/4W	
R1713		1-249-429-11	CARBON	10K	5%	1/4W	
R1714		1-249-414-11	CARBON	560	5%	1/4W	F
R1715		1-249-432-11	CARBON	18K	5%	1/4W	
R1716		1-249-432-11	CARBON	18K	5%	1/4W	
R1717		1-249-414-11	CARBON	560	5%	1/4W	
R1718		1-249-421-11	CARBON	2.2K	5%	1/4W	
R1719		1-249-421-11	CARBON	2.2K	5%	1/4W	
R1720		1-260-311-11	CARBON	39	5%	1/2W	
R1721		1-249-383-11	CARBON	1.5	5%	1/4W	F
R1722		1-249-383-11	CARBON	1.5	5%	1/4W	F
R1723		1-249-400-11	CARBON	39	5%	1/4W	F
R1724		1-215-914-11	METAL OXIDE	330	5%	3W	F
R1725		1-249-419-11	CARBON	1.5K	5%	1/4W	
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REF. NO.	PART.NO	DESCRIPTION	REMARK
	*A-1646-163-A	H BOARD, COMPLETE	
		**********	
		<CAPACITOR>	
C908	1-137-372-11	FILM 0.022MF 5%	50V
C909	1-137-372-11	FILM 0.022MF 5%	50V
C936	1-163-133-00	CERAMIC CHIP 470PF 5%	50V
C937	1-163-133-00	CERAMIC CHIP 470PF 5%	50V
C938	1-163-133-00	CERAMIC CHIP 470PF 5%	50V
		<CONNECTOR>	
CN902	*1-564-507-11	PLUG, CONNECTOR 4P	
CN903	*1-568-882-51	PIN, CONNECTOR 7P	
CN905	*1-564-518-11	PLUG, CONNECTOR 3P	
		<DIODE>	
D901	8-719-108-12	DIODE RD9.1EW	
D902	8-719-108-12	DIODE RD9.1EW	
D903	8-719-108-12	DIODE RD9.1EW	
D904	8-719-108-12	DIODE RD9.1EW	
		<JACK>	
J901	1-764-606-11	JACK	
J902	1-779-947-11	TERMINAL BLOCK, S	
		<COIL>	
L901	1-408-603-31	INDUCTOR 10UH	
L902	1-408-603-31	INDUCTOR 10UH	
L903	1-408-603-31	INDUCTOR 10UH	
L904	1-408-603-31	INDUCTOR 10UH	
		<RESISTOR>	
R911	1-247-895-91	CARBON 470K 5%	1/4W
R912	1-247-895-91	CARBON 470K 5%	1/4W
		**********	
	*A-1651-096-A	J BOARD, COMPLETE	
		**********	
		<CAPACITOR>	
C3201	1-107-823-11	CERAMIC CHIP 0.47MF 10%	16V
C3202	1-163-251-11	CERAMIC CHIP 100PF 5%	50V
C3203	1-104-664-11	ELECT 47MF 20%	25V
C3204	1-104-664-11	ELECT 47MF 20%	25V
C3205	1-107-823-11	CERAMIC CHIP 0.47MF 10%	16V
C3206	1-163-021-91	CERAMIC CHIP 0.01MF 10%	50V
C3207	1-163-251-11	CERAMIC CHIP 100PF 5%	50V
C3208	1-104-664-11	ELECT 47MF 20%	25V
C3209	1-163-021-91	CERAMIC CHIP 0.01MF 10%	50V
C3210	1-107-823-11	CERAMIC CHIP 0.47MF 10%	16V
C3211	1-104-664-11	ELECT 47MF 20%	25V
C3213	1-104-664-11	ELECT 47MF 20%	25V
C3215	1-163-021-91	CERAMIC CHIP 0.01MF 10%	50V
C3216	1-163-251-11	CERAMIC CHIP 100PF 5%	50V
C3217	1-163-021-91	CERAMIC CHIP 0.01MF 10%	50V
C3218	1-126-933-11	ELECT 100MF 20%	16V
C3219	1-104-664-11	ELECT 47MF 20%	25V
C3220	1-126-933-11	ELECT 100MF 20%	16V
C3221	1-163-021-91	CERAMIC CHIP 0.01MF 10%	50V
C3222	1-163-021-91	CERAMIC CHIP 0.01MF 10%	50V
C3224	1-126-933-11	ELECT 100MF 20%	16V
C3225	1-107-823-11	CERAMIC CHIP 0.47MF 10%	16V
C3226	1-163-021-91	CERAMIC CHIP 0.01MF 10%	50V
C3228	1-163-009-11	CERAMIC CHIP 0.001MF 10%	50V
C3229	1-107-823-11	CERAMIC CHIP 0.47MF 10%	16V
C3230	1-136-161-00	FILM 0.047MF 5%	50V
C3231	1-163-009-11	CERAMIC CHIP 0.001MF 10%	50V
C3232	1-163-251-11	CERAMIC CHIP 100PF 5%	50V
C3233	1-104-664-11	ELECT 47MF 20%	25V
C3234	1-163-021-91	CERAMIC CHIP 0.01MF 10%	50V
C3235	1-216-067-00	RES,CHIP 5.6K 5%	1/10W
C3236	1-107-823-11	CERAMIC CHIP 0.47MF 10%	16V
C3237	1-104-664-11	ELECT 47MF 20%	25V
C3238	1-163-017-00	CERAMIC CHIP 0.0047MF 10%	50V
C3239	1-163-037-11	CERAMIC CHIP 0.022MF 10%	50V
C3240	1-164-346-11	CERAMIC CHIP 1MF	16V
C3241	1-104-664-11	ELECT 47MF 20%	25V
C3242	1-164-346-11	CERAMIC CHIP 1MF	16V
C3243	1-104-664-11	ELECT 47MF 20%	25V
C3244	1-126-933-11	ELECT 100MF 20%	16V
C3245	1-163-251-11	CERAMIC CHIP 100PF 5%	50V
C3246	1-163-021-91	CERAMIC CHIP 0.01MF 10%	50V
C3247	1-163-021-91	CERAMIC CHIP 0.01MF 10%	50V
C3248	1-163-251-11	CERAMIC CHIP 100PF 5%	50V
C3249	1-163-021-91	CERAMIC CHIP 0.01MF 10%	50V
C3250	1-107-823-11	CERAMIC CHIP 0.47MF 10%	16V
C3251	1-107-823-11	CERAMIC CHIP 0.47MF 10%	16V
C3252	1-104-664-11	ELECT 47MF 20%	25V
C3253	1-163-021-91	CERAMIC CHIP 0.01MF 10%	50V
C3254	1-107-823-11	CERAMIC CHIP 0.47MF 10%	16V
C3255	1-107-823-11	CERAMIC CHIP 0.47MF 10%	16V
C3256	1-104-664-11	ELECT 47MF 20%	25V
C3259	1-104-664-11	ELECT 47MF 20%	25V
C3261	1-163-021-91	CERAMIC CHIP 0.01MF 10%	50V
C3264	1-163-251-11	CERAMIC CHIP 100PF 5%	50V
C3265	1-107-823-11	CERAMIC CHIP 0.47MF 10%	16V
C3266	1-107-823-11	CERAMIC CHIP 0.47MF 10%	16V
C3270	1-163-251-11	CERAMIC CHIP 100PF 5%	50V
C3271	1-104-664-11	ELECT 47MF 20%	25V
C3277	1-163-009-11	CERAMIC CHIP 0.001MF 10%	50V
C3279	1-163-009-11	CERAMIC CHIP 0.001MF 10%	50V
C3280	1-163-017-00	CERAMIC CHIP 0.0047MF 10%	50V

REF. NO.	PART.NO	DESCRIPTION	REMARK
C3281	1-163-037-11	CERAMIC CHIP 0.022MF 10% 50V	
C3283	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C3284	1-163-017-00	CERAMIC CHIP 0.0047MF 10% 50V	
C3285	1-163-037-11	CERAMIC CHIP 0.022MF 10% 50V	
C3287	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C3288	1-163-017-00	CERAMIC CHIP 0.0047MF 10% 50V	
C3289	1-163-037-11	CERAMIC CHIP 0.022MF 10% 50V	
C3291	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C3292	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C3309	1-104-664-11	ELECT 47MF 20% 25V	
		<CONNECTOR>	
CN4201	1-695-301-11	CONNECTOR, BOARD TO BOARD 40P	
CN4202	*1-564-522-11	PLUG, CONNECTOR 7P	
CN4205	*1-564-519-11	PLUG, CONNECTOR 4P	
CN4206	*1-564-507-11	PLUG, CONNECTOR 4P	
CN4207	*1-564-521-11	PLUG, CONNECTOR 6P	
CN4208	*1-564-518-11	PLUG, CONNECTOR 3P	
CN4209	*1-564-507-11	PLUG, CONNECTOR 4P	
CN4210	*1-564-518-11	PLUG, CONNECTOR 3P	
		<DIODE>	
D4201	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D4202	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D4203	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D4204	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D4205	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D4206	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D4207	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D4208	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D4209	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D4210	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D4211	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D4212	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D4213	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D4214	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D4215	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D4216	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D4217	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D4218	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D4220	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D4222	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D4223	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D4224	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D4225	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D4226	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D4227	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D4228	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D4229	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D4230	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D4232	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D4233	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D4234	8-719-923-60	DIODE MTZJ-T-77-9.1A	
D4235	8-719-923-60	DIODE MTZJ-T-77-9.1A	
		<IC>	
IC4201	8-759-330-93	IC TDA7309	
IC4202	8-759-545-66	IC NJM3414AMP(TE2)	
IC4203	8-752-082-87	IC CXA1845Q-TL	
		<JACK>	
J4201	1-561-534-41	SOCKET, PIN 21P	
J4203	1-695-293-11	SOCKET 21P	
J4204	1-695-293-11	SOCKET 21P	
J4207	1-537-979-11	TERMINAL BOARD	
J4208	1-537-978-11	TERMINAL BOARD	
		<COIL>	
L4201	1-408-615-31	INDUCTOR 100UH	
L4202	1-408-615-31	INDUCTOR 100UH	
L4203	1-408-615-31	INDUCTOR 100UH	
L4207	1-402-711-11	INDUCTOR 1UH	
L4208	1-402-711-11	INDUCTOR 1UH	
L4210	1-402-711-11	INDUCTOR 1UH	
L4212	1-402-711-11	INDUCTOR 1UH	
		<TRANSISTOR>	
Q4204	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q4205	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q4206	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q4207	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q4208	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q4209	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q4210	8-729-216-22	TRANSISTOR 2SA1162-G	
Q4214	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q4217	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q4218	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q4219	8-729-620-06	TRANSISTOR 2SC3052-EF	
		<RESISTOR>	
JR4205	1-216-296-91	SHORT 0	
JR4207	1-216-296-91	SHORT 0	
JR4209	1-216-296-91	SHORT 0	
JR4210	1-216-295-91	SHORT 0	
JR7101	1-216-295-91	SHORT 0	
R4201	1-216-071-00	RES,CHIP 8.2K 5%	1/10W
R4202	1-216-073-00	RES,CHIP 10K 5%	1/10W
R4203	1-216-049-91	RES,CHIP 1K 5%	1/10W
R4204	1-216-065-91	RES,CHIP 4.7K 5%	1/10W
R4205	1-216-113-00	RES,CHIP 470K 5%	1/10W
R4206	1-216-022-00	RES,CHIP 75 5%	1/10W
R4207	1-216-022-00	RES,CHIP 75 5%	1/10W
R4208	1-216-022-00	RES,CHIP 75 5%	1/10W

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REF. NO.	PART.NO	DESCRIPTION			REMARK
R4209	1-216-022-00	RES,CHIP	75	5%	1/10W
R4210	1-216-022-00	RES,CHIP	75	5%	1/10W
R4211	1-216-022-00	RES,CHIP	75	5%	1/10W
R4212	1-216-033-00	RES,CHIP	220	5%	1/10W
R4213	1-216-295-91	SHORT	0		
R4214	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R4215	1-216-113-00	RES,CHIP	470K	5%	1/10W
R4216	1-216-089-91	RES,CHIP	47K	5%	1/10W
R4217	1-216-049-91	RES,CHIP	1K	5%	1/10W
R4218	1-216-033-00	RES,CHIP	220	5%	1/10W
R4219	1-216-295-91	SHORT	0		
R4220	1-216-089-91	RES,CHIP	47K	5%	1/10W
R4221	1-216-009-91	RES,CHIP	22	5%	1/10W
R4222	1-216-073-00	RES,CHIP	10K	5%	1/10W
R4223	1-216-071-00	RES,CHIP	8.2K	5%	1/10W
R4224	1-216-022-00	RES,CHIP	75	5%	1/10W
R4225	1-216-063-91	RES,CHIP	3.9K	5%	1/10W
R4226	1-216-022-00	RES,CHIP	75	5%	1/10W
R4227	1-216-041-00	RES,CHIP	470	5%	1/10W
R4228	1-216-041-00	RES,CHIP	470	5%	1/10W
R4229	1-216-113-00	RES,CHIP	470K	5%	1/10W
R4231	1-216-022-00	RES,CHIP	75	5%	1/10W
R4232	1-216-295-91	SHORT	0		
R4233	1-216-025-91	RES,CHIP	100	5%	1/10W
R4235	1-216-049-91	RES,CHIP	1K	5%	1/10W
R4236	1-216-295-91	SHORT	0		
R4239	1-216-033-00	RES,CHIP	220	5%	1/10W
R4240	1-216-089-91	RES,CHIP	47K	5%	1/10W
R4242	1-216-033-00	RES,CHIP	220	5%	1/10W
R4243	1-216-089-91	RES,CHIP	47K	5%	1/10W
R4244	1-216-025-91	RES,CHIP	100	5%	1/10W
R4245	1-216-073-00	RES,CHIP	10K	5%	1/10W
R4246	1-216-073-00	RES,CHIP	10K	5%	1/10W
R4247	1-216-073-00	RES,CHIP	10K	5%	1/10W
R4248	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R4249	1-216-113-00	RES,CHIP	470K	5%	1/10W
R4251	1-216-073-00	RES,CHIP	10K	5%	1/10W
R4252	1-216-025-91	RES,CHIP	100	5%	1/10W
R4253	1-216-025-91	RES,CHIP	100	5%	1/10W
R4254	1-216-049-91	RES,CHIP	1K	5%	1/10W
R4255	1-216-081-00	RES,CHIP	22K	5%	1/10W
R4256	1-216-081-00	RES,CHIP	22K	5%	1/10W
R4257	1-216-073-00	RES,CHIP	10K	5%	1/10W
R4258	1-216-073-00	RES,CHIP	10K	5%	1/10W
R4259	1-216-073-00	RES,CHIP	10K	5%	1/10W
R4260	1-216-022-00	RES,CHIP	75	5%	1/10W
R4261	1-216-022-00	RES,CHIP	75	5%	1/10W
R4264	1-216-295-91	SHORT	0		
R4265	1-216-022-00	RES,CHIP	75	5%	1/10W
R4268	1-216-295-91	SHORT	0		
R4269	1-216-295-91	SHORT	0		
R4270	1-216-113-00	RES,CHIP	470K	5%	1/10W
R4271	1-216-073-00	RES,CHIP	10K	5%	1/10W
R4272	1-216-071-00	RES,CHIP	8.2K	5%	1/10W
R4273	1-216-049-91	RES,CHIP	1K	5%	1/10W
R4274	1-216-113-00	RES,CHIP	470K	5%	1/10W
R4275	1-216-049-91	RES,CHIP	1K	5%	1/10W
R4276	1-216-049-91	RES,CHIP	1K	5%	1/10W
R4277	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R4278	1-216-033-00	RES,CHIP	220	5%	1/10W
R4279	1-216-089-91	RES,CHIP	47K	5%	1/10W
R4280	1-216-049-91	RES,CHIP	1K	5%	1/10W
R4281	1-216-049-91	RES,CHIP	1K	5%	1/10W
R4282	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R4283	1-216-033-00	RES,CHIP	220	5%	1/10W
R4284	1-216-089-91	RES,CHIP	47K	5%	1/10W
R4285	1-216-049-91	RES,CHIP	1K	5%	1/10W
R4286	1-216-295-91	SHORT	0		
R4287	1-216-049-91	RES,CHIP	1K	5%	1/10W
R4288	1-216-295-91	SHORT	0		
R4290	1-216-055-00	RES,CHIP	1.8K	5%	1/10W
R4291	1-216-049-91	RES,CHIP	1K	5%	1/10W
R4292	1-216-295-91	SHORT	0		
R4293	1-216-049-91	RES,CHIP	1K	5%	1/10W
R4295	1-216-009-91	RES,CHIP	22	5%	1/10W
R4296	1-216-022-00	RES,CHIP	75	5%	1/10W
R4297	1-216-113-00	RES,CHIP	470K	5%	1/10W
R4298	1-216-022-00	RES,CHIP	75	5%	1/10W
R4304	1-216-049-91	RES,CHIP	1K	5%	1/10W
R4305	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R4307	1-216-049-91	RES,CHIP	1K	5%	1/10W
R4308	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R4309	1-216-113-00	RES,CHIP	470K	5%	1/10W
R4317	1-216-009-91	RES,CHIP	22	5%	1/10W
R4319	1-216-295-91	SHORT	0		
R4320	1-216-295-91	SHORT	0		
R4322	1-216-049-91	RES,CHIP	1K	5%	1/10W
R4337	1-216-033-00	RES,CHIP	220	5%	1/10W
R4341	1-216-033-00	RES,CHIP	220	5%	1/10W
R4376	1-216-295-91	SHORT	0		
R4377	1-216-295-91	SHORT	0		
R4379	1-216-081-00	RES,CHIP	22K	5%	1/10W
R4380	1-216-081-00	RES,CHIP	22K	5%	1/10W
R4381	1-216-101-00	RES,CHIP	150K	5%	1/10W
R4382	1-216-101-00	RES,CHIP	150K	5%	1/10W
R4383	1-216-049-91	RES,CHIP	1K	5%	1/10W
R4389	1-216-097-91	RES,CHIP	100K	5%	1/10W
R4390	1-216-097-91	RES,CHIP	100K	5%	1/10W
R4393	1-216-295-91	SHORT	0		
R4394	1-216-295-91	SHORT	0		
R4395	1-216-295-91	SHORT	0		
R4396	1-216-025-91	RES,CHIP	100	5%	1/10W

REF. NO.	PART.NO	DESCRIPTION	REMARK
R4397	1-216-025-91	RES,CHIP 100 5%	1/10W
R4398	1-216-025-91	RES,CHIP 100 5%	1/10W
R4399	1-216-025-91	RES,CHIP 100 5%	1/10W
R4400	1-216-049-91	RES,CHIP 1K 5%	1/10W
R4401	1-216-049-91	RES,CHIP 1K 5%	1/10W

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*A-1654-030-A N BOARD, COMPLETE
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<CAPACITOR>

C3101	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3102	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3103	1-163-251-11	CERAMIC CHIP 100PF	5%	50V
C3104	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3105	1-126-964-11	ELECT 10MF	20%	50V
C3106	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3107	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3109	1-163-251-11	CERAMIC CHIP 100PF	5%	50V
C3110	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3111	1-163-251-11	CERAMIC CHIP 100PF	5%	50V
C3112	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3113	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3114	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3115	1-163-251-11	CERAMIC CHIP 100PF	5%	50V
C3116	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3118	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3121	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3122	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3123	1-126-964-11	ELECT 10MF	20%	50V
C3124	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3128	1-163-038-91	CERAMIC CHIP 0.1MF		25V
C3129	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3130	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3131	1-163-263-11	CERAMIC CHIP 330PF	5%	50V
C3132	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3134	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3138	1-107-888-11	ELECT 47MF	20%	25V
C3139	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3140	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3141	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3142	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3143	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3201	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3202	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3203	1-126-964-11	ELECT 10MF	20%	50V
C3204	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3205	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3206	1-126-964-11	ELECT 10MF	20%	50V
C3207	1-126-964-11	ELECT 10MF	20%	50V
C3208	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V
C3209	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V
C3210	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3211	1-126-964-11	ELECT 10MF	20%	50V
C3212	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3213	1-163-251-11	CERAMIC CHIP 100PF	5%	50V
C3214	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3215	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3216	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3217	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3218	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3219	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3220	1-163-251-11	CERAMIC CHIP 100PF	5%	50V
C3221	1-163-251-11	CERAMIC CHIP 100PF	5%	50V
C3222	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3223	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3224	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3225	1-163-251-11	CERAMIC CHIP 100PF	5%	50V
C3226	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3227	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3228	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3229	1-163-227-11	CERAMIC CHIP 10PF	0.5PF	50V
C3230	1-107-888-11	ELECT 47MF	20%	25V
C3231	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3232	1-107-888-11	ELECT 47MF	20%	25V
C3233	1-163-263-11	CERAMIC CHIP 330PF	5%	50V
C3305	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3308	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3311	1-107-888-11	ELECT 47MF	20%	25V
C3315	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3318	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3319	1-163-251-11	CERAMIC CHIP 100PF	5%	50V
C3320	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3323	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3324	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3325	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3326	1-163-251-11	CERAMIC CHIP 100PF	5%	50V
C3327	1-163-251-11	CERAMIC CHIP 100PF	5%	50V
C3328	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3329	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3330	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3331	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3332	1-163-251-11	CERAMIC CHIP 100PF	5%	50V
C3333	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3334	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3336	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3337	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3339	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3340	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3341	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3342	1-163-021-91	CERAMIC CHIP 0.01MF	10%	50V
C3343	1-163-263-11	CERAMIC CHIP 330PF	5%	50V

The components identified by shading and marked ⚠ are critical for safety
Replace only with the part number specified.

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REF. NO.	PART.NO	DESCRIPTION	REMARK
C3344	1-163-021-91	CERAMIC CHIP 0.01MF 10% 50V	
C3345	1-163-021-91	CERAMIC CHIP 0.01MF 10% 50V	
C3346	1-107-888-11	ELECT 47MF 20% 25V	
C3347	1-163-021-91	CERAMIC CHIP 0.01MF 10% 50V	
C3401	1-163-021-91	CERAMIC CHIP 0.01MF 10% 50V	
C3402	1-163-021-91	CERAMIC CHIP 0.01MF 10% 50V	
C3412	1-163-021-91	CERAMIC CHIP 0.01MF 10% 50V	
C3413	1-163-021-91	CERAMIC CHIP 0.01MF 10% 50V	
C3414	1-163-021-91	CERAMIC CHIP 0.01MF 10% 50V	
C3415	1-163-021-91	CERAMIC CHIP 0.01MF 10% 50V	
C3416	1-163-021-91	CERAMIC CHIP 0.01MF 10% 50V	
C3417	1-163-021-91	CERAMIC CHIP 0.01MF 10% 50V	
C3418	1-163-021-91	CERAMIC CHIP 0.01MF 10% 50V	
C3419	1-163-021-91	CERAMIC CHIP 0.01MF 10% 50V	
C3420	1-163-021-91	CERAMIC CHIP 0.01MF 10% 50V	
C3421	1-163-021-91	CERAMIC CHIP 0.01MF 10% 50V	
C3422	1-163-038-91	CERAMIC CHIP 0.1MF 25V	
C3425	1-163-021-91	CERAMIC CHIP 0.01MF 10% 50V	
		<FILTER>	
CF3101	1-543-948-11	FERRITE 0UH	
CF3102	1-543-948-11	FERRITE 0UH	
CF3104	1-543-948-11	FERRITE 0UH	
CF3106	1-216-295-91	SHORT 0	
CF3108	1-543-948-11	FERRITE 0UH	
CF3109	1-543-948-11	FERRITE 0UH	
CF3110	1-543-948-11	FERRITE 0UH	
CF3111	1-543-948-11	FERRITE 0UH	
CF3112	1-543-948-11	FERRITE 0UH	
CF3113	1-543-948-11	FERRITE 0UH	
CF3114	1-543-948-11	FERRITE 0UH	
CF3115	1-543-948-11	FERRITE 0UH	
CF3116	1-500-245-11	FERRITE 0UH	
CF3117	1-500-245-11	FERRITE 0UH	
CF3123	1-500-245-11	FERRITE 0UH	
CF3124	1-500-245-11	FERRITE 0UH	
CF3201	1-500-245-11	FERRITE 0UH	
CF3202	1-500-245-11	FERRITE 0UH	
CF3203	1-500-245-11	FERRITE 0UH	
CF3301	1-414-232-22	INDUCTOR CHIP 0UH	
CF3302	1-414-232-22	INDUCTOR CHIP 0UH	
CF3303	1-414-232-22	INDUCTOR CHIP 0UH	
CF3304	1-414-232-22	INDUCTOR CHIP 0UH	
CF3305	1-414-232-22	INDUCTOR CHIP 0UH	
CF3306	1-414-232-22	INDUCTOR CHIP 0UH	
CF3307	1-414-232-22	INDUCTOR CHIP 0UH	
CF3308	1-414-232-22	INDUCTOR CHIP 0UH	
CF3309	1-500-245-11	FERRITE 0UH	
		<CONNECTOR>	
C3101	1-695-302-11	CONNECTOR, BOARD TO BOARD 50P	
C3102	*1-564-510-11	PLUG, CONNECTOR 7P	
C3301	1-563-486-11	SOCKET, CONNECTOR	
C3302	*1-565-186-11	PIN, CONNECTOR (PC BOARD) 26P	
C3303	*1-564-510-11	PLUG, CONNECTOR 7P	
C3401	1-785-770-11	CONNECTOR, PCMCIA	
		<DIODE>	
D3305	8-719-914-43	DIODE DAN202K	
D3306	8-719-421-59	DIODE MA3130WA-TX	
D3307	8-719-421-59	DIODE MA3130WA-TX	
D3308	8-719-421-59	DIODE MA3130WA-TX	
D3309	8-719-421-59	DIODE MA3130WA-TX	
		<FUSE>	
F3301	⚠ 1-533-900-21	FUSE	
		<FILTER>	
FL3101	1-239-899-21	FILTER, CHIP EMI	
FL3102	1-239-899-21	FILTER, CHIP EMI	
FL3107	1-239-899-21	FILTER, CHIP EMI	
FL3108	1-239-899-21	FILTER, CHIP EMI	
FL3109	1-239-558-11	FILTER, CHIP EMI	
FL3110	1-239-558-11	FILTER, CHIP EMI	
FL3111	1-239-558-11	FILTER, CHIP EMI	
FL3112	1-239-558-11	FILTER, CHIP EMI	
FL3113	1-239-558-11	FILTER, CHIP EMI	
FL3114	1-239-558-11	FILTER, CHIP EMI	
FL3201	1-239-899-21	FILTER, CHIP EMI	
FL3203	1-239-899-21	FILTER, CHIP EMI	
FL3206	1-239-899-21	FILTER, CHIP EMI	
FL3301	1-239-899-21	FILTER, CHIP EMI	
FL3302	1-239-899-21	FILTER, CHIP EMI	
FL3307	1-239-899-21	FILTER, CHIP EMI	
FL3309	1-239-899-21	FILTER, CHIP EMI	
FL3310	1-239-899-21	FILTER, CHIP EMI	
FL3311	1-239-899-21	FILTER, CHIP EMI	
FL3401	1-239-899-21	FILTER, CHIP EMI	
FL3402	1-239-899-21	FILTER, CHIP EMI	
FL3403	1-239-899-21	FILTER, CHIP EMI	
		<IC>	
IC3101	8-759-398-17	IC MC74HC04ADR2	
IC3102	8-759-560-76	IC 74LV08D-118	
IC3103	8-759-538-23	IC AVIA-GTX	
IC3112	8-759-378-26	IC ST24C16FM6-TR	
IC3113	8-759-560-78	IC KM416V1204BT-6	
IC3114	8-759-560-78	IC KM416V1204BT-6	
IC3115	8-759-271-86	IC TC7SH04FU	
IC3117	8-759-394-05	IC TC7SH08F-TE85R	
IC3119	8-759-542-07	IC 74LV244D-118	
IC3120	8-759-394-05	IC TC7SH08F-TE85R	

REF. NO.	PART.NO	DESCRIPTION	REMARK
IC3121	8-759-394-05	IC TC7SH08F-TE85R	
IC3122	8-759-394-05	IC TC7SH08F-TE85R	
IC3123	8-759-271-86	IC TC7SH04FU	
IC3201	8-759-701-39	IC NJM3404AM	
IC3202	8-759-485-02	IC SAA7120H/V1	
IC3203	8-759-491-20	IC PCM1725U	
IC3204	8-759-492-07	IC 74LV86D-118	
IC3205	8-759-560-24	IC SAA7201-C2D	
IC3206	8-759-492-08	IC 74LV164D-118	
IC3207	8-759-470-99	IC TMS62612-12DGE	
IC3208	8-759-991-41	IC LM78L05ACZ	
IC3209	8-759-394-05	IC TC7SH08F-TE85R	
IC3301	8-759-342-60	IC PST575DMT-T1	
IC3304	8-759-560-78	IC KM416V1204BT-6	
IC3307	8-759-560-78	IC KM416V1204BT-6	
IC3308	8-759-539-09	IC MCF5206EFT25	
IC3309	8-759-561-60	IC MBM29LV160B-90PTFN	
IC3310	8-759-561-60	IC MBM29LV160B-90PTFN	
IC3312	8-759-542-03	IC 74LV11D-118	
IC3313	8-759-492-09	IC 74LV00D-118	
IC3315	8-759-577-89	IC 74LV273D-118	
IC3316	8-759-542-08	IC 74LV373D-118	
IC3317	8-759-542-07	IC 74LV244D-118	
IC3318	8-759-560-75	IC 74LV157D-118	
IC3320	8-759-492-09	IC 74LV00D-118	
IC3321	8-759-271-86	IC TC7SH04FU	
IC3402	8-759-542-07	IC 74LV244D-118	
IC3403	8-759-542-06	IC 74LV245D-118	
IC3404	8-759-542-07	IC 74LV244D-118	
IC3405	8-759-542-07	IC 74LV244D-118	
IC3406	8-752-394-14	IC CXD1957Q-TL	
IC3407	8-759-542-07	IC 74LV244D-118	
IC3408	8-759-542-07	IC 74LV244D-118	
IC3409	8-759-542-07	IC 74LV244D-118	
IC3410	8-759-542-07	IC 74LV244D-118	
IC3411	8-759-542-07	IC 74LV244D-118	
IC3412	8-759-346-63	IC MIC2560-0BWM-T&R	
IC3413	8-759-271-86	IC TC7SH04FU	
IC3416	8-759-234-77	IC TC4S66F	
		<TRANSISTOR>	
Q3101	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q3201	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q3202	8-729-216-22	TRANSISTOR 2SA1162-G	
Q3301	8-729-106-60	TRANSISTOR 2SB1115A-YQ	
Q3302	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q3303	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q3401	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q3402	1-801-806-11	TRANSISTOR DTC144EKA-T146	

REF. NO.	PART.NO	DESCRIPTION			REMARK
		<RESISTOR>			
R3102	1-216-025-91	RES,CHIP	100	5%	1/10W
R3103	1-216-025-91	RES,CHIP	100	5%	1/10W
R3105	1-216-025-91	RES,CHIP	100	5%	1/10W
R3107	1-216-025-91	RES,CHIP	100	5%	1/10W
R3108	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3109	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3110	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3111	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3112	1-216-025-91	RES,CHIP	100	5%	1/10W
R3113	1-216-025-91	RES,CHIP	100	5%	1/10W
R3114	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3115	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3116	1-216-295-91	SHORT	0		
R3117	1-216-295-91	SHORT	0		
R3120	1-216-025-91	RES,CHIP	100	5%	1/10W
R3121	1-216-017-91	RES,CHIP	47	5%	1/10W
R3122	1-216-017-91	RES,CHIP	47	5%	1/10W
R3124	1-216-017-91	RES,CHIP	47	5%	1/10W
R3125	1-216-295-91	SHORT	0		
R3126	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3128	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R3129	1-216-295-91	SHORT	0		
R3130	1-216-295-91	SHORT	0		
R3132	1-216-017-91	RES,CHIP	47	5%	1/10W
R3133	1-216-017-91	RES,CHIP	47	5%	1/10W
R3134	1-216-017-91	RES,CHIP	47	5%	1/10W
R3135	1-216-017-91	RES,CHIP	47	5%	1/10W
R3136	1-216-295-91	SHORT	0		
R3139	1-216-295-91	SHORT	0		
R3141	1-216-025-91	RES,CHIP	100	5%	1/10W
R3142	1-216-025-91	RES,CHIP	100	5%	1/10W
R3143	1-216-025-91	RES,CHIP	100	5%	1/10W
R3144	1-216-025-91	RES,CHIP	100	5%	1/10W
R3145	1-216-025-91	RES,CHIP	100	5%	1/10W
R3146	1-216-025-91	RES,CHIP	100	5%	1/10W
R3147	1-216-025-91	RES,CHIP	100	5%	1/10W
R3148	1-216-025-91	RES,CHIP	100	5%	1/10W
R3149	1-216-025-91	RES,CHIP	100	5%	1/10W
R3150	1-216-025-91	RES,CHIP	100	5%	1/10W
R3151	1-216-017-91	RES,CHIP	47	5%	1/10W
R3152	1-216-025-91	RES,CHIP	100	5%	1/10W
R3153	1-216-025-91	RES,CHIP	100	5%	1/10W
R3154	1-216-025-91	RES,CHIP	100	5%	1/10W
R3155	1-216-025-91	RES,CHIP	100	5%	1/10W
R3156	1-216-025-91	RES,CHIP	100	5%	1/10W
R3157	1-216-025-91	RES,CHIP	100	5%	1/10W
R3158	1-216-025-91	RES,CHIP	100	5%	1/10W
R3159	1-216-025-91	RES,CHIP	100	5%	1/10W
R3160	1-216-025-91	RES,CHIP	100	5%	1/10W
R3161	1-216-025-91	RES,CHIP	100	5%	1/10W

N

REF. NO.	PART.NO	DESCRIPTION			REMARK
R3201	1-216-683-11	METAL CHIP	22K	0.50%	1/10W
R3202	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R3203	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R3204	1-216-683-11	METAL CHIP	22K	0.50%	1/10W
R3205	1-216-043-91	RES,CHIP	560	5%	1/10W
R3206	1-216-675-11	METAL CHIP	10K	0.50%	1/10W
R3207	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3208	1-216-689-11	RES,CHIP	39K	5%	1/10W
R3209	1-216-689-11	RES,CHIP	39K	5%	1/10W
R3210	1-216-675-11	METAL CHIP	10K	0.50%	1/10W
R3211	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3212	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R3213	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R3214	1-216-295-91	SHORT	0		
R3215	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3216	1-216-061-00	RES,CHIP	3.3K	5%	1/10W
R3217	1-216-025-91	RES,CHIP	100	5%	1/10W
R3218	1-216-025-91	RES,CHIP	100	5%	1/10W
R3219	1-216-025-91	RES,CHIP	100	5%	1/10W
R3220	1-216-025-91	RES,CHIP	100	5%	1/10W
R3222	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3223	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3224	1-216-061-00	RES,CHIP	3.3K	5%	1/10W
R3226	1-216-017-91	RES,CHIP	47	5%	1/10W
R3227	1-216-295-91	SHORT	0		
R3228	1-216-022-00	RES,CHIP	75	5%	1/10W
R3229	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3230	1-216-025-91	RES,CHIP	100	5%	1/10W
R3231	1-216-025-91	RES,CHIP	100	5%	1/10W
R3232	1-216-025-91	RES,CHIP	100	5%	1/10W
R3233	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3234	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3235	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3237	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3238	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3239	1-216-025-91	RES,CHIP	100	5%	1/10W
R3240	1-216-025-91	RES,CHIP	100	5%	1/10W
R3241	1-216-025-91	RES,CHIP	100	5%	1/10W
R3244	1-216-017-91	RES,CHIP	47	5%	1/10W
R3245	1-216-017-91	RES,CHIP	47	5%	1/10W
R3246	1-216-017-91	RES,CHIP	47	5%	1/10W
R3301	1-216-025-91	RES,CHIP	100	5%	1/10W
R3302	1-216-025-91	RES,CHIP	100	5%	1/10W
R3303	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3304	1-216-295-91	SHORT	0		
R3305	1-216-025-91	RES,CHIP	100	5%	1/10W
R3306	1-216-025-91	RES,CHIP	100	5%	1/10W
R3307	1-216-025-91	RES,CHIP	100	5%	1/10W
R3309	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3310	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3311	1-216-043-91	RES,CHIP	560	5%	1/10W
R3313	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3315	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3327	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3328	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3329	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3330	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3331	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3332	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3333	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3338	1-216-295-91	SHORT	0		
R3339	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3340	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3341	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3342	1-216-295-91	SHORT	0		
R3344	1-216-295-91	SHORT	0		
R3345	1-216-295-91	SHORT	0		
R3346	1-216-025-91	RES,CHIP	100	5%	1/10W
R3347	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3348	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3349	1-216-017-91	RES,CHIP	47	5%	1/10W
R3350	1-216-295-91	SHORT	0		
R3351	1-216-295-91	SHORT	0		
R3352	1-216-295-91	SHORT	0		
R3354	1-216-295-91	SHORT	0		
R3355	1-216-295-91	SHORT	0		
R3357	1-216-295-91	SHORT	0		
R3359	1-216-295-91	SHORT	0		
R3361	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3362	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3401	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3402	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3403	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3404	1-216-073-00	RES,CHIP	10K	5%	1/10W
R3405	1-216-081-00	RES,CHIP	22K	5%	1/10W
R3406	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3410	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3411	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3412	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3416	1-216-017-91	RES,CHIP	47	5%	1/10W
R3417	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3418	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3419	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3420	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3421	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3422	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3423	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3424	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3425	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3426	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3427	1-216-049-91	RES,CHIP	1K	5%	1/10W
R3428	1-216-017-91	RES,CHIP	47	5%	1/10W

The components identified by shading and marked ⚠ are critical for safety
Replace only with the part number specified.

N

REF. NO.	PART.NO	DESCRIPTION	REMARK
R3430	1-216-295-91	SHORT 0	
		<RESISTOR CHIP NETWORK>	
RB105	1-233-575-11	RES, CHIP NETWORK 22	
RB106	1-233-575-11	RES, CHIP NETWORK 22	
RB107	1-233-575-11	RES, CHIP NETWORK 22	
RB108	1-233-575-11	RES, CHIP NETWORK 22	
RB110	1-233-575-11	RES, CHIP NETWORK 22	
RB111	1-233-575-11	RES, CHIP NETWORK 22	
RB112	1-233-575-11	RES, CHIP NETWORK 22	
RB113	1-233-575-11	RES, CHIP NETWORK 22	
RB114	1-233-575-11	RES, CHIP NETWORK 22	
RB115	1-233-575-11	RES, CHIP NETWORK 22	
RB116	1-233-575-11	RES, CHIP NETWORK 22	
RB117	1-233-575-11	RES, CHIP NETWORK 22	
RB118	1-233-575-11	RES, CHIP NETWORK 22	
RB119	1-239-409-11	RES, CHIP NETWORK 47	
RB120	1-239-409-11	RES, CHIP NETWORK 47	
RB201	1-233-575-11	RES, CHIP NETWORK 22	
RB202	1-233-575-11	RES, CHIP NETWORK 22	
RB203	1-233-575-11	RES, CHIP NETWORK 22	
RB204	1-233-575-11	RES, CHIP NETWORK 22	
RB205	1-233-575-11	RES, CHIP NETWORK 22	
RB206	1-233-575-11	RES, CHIP NETWORK 22	
RB207	1-233-575-11	RES, CHIP NETWORK 22	
RB208	1-233-575-11	RES, CHIP NETWORK 22	
RB209	1-239-409-11	RES, CHIP NETWORK 47	
RB210	1-239-409-11	RES, CHIP NETWORK 47	
RB301	1-239-409-11	RES, CHIP NETWORK 47	
RB302	1-239-409-11	RES, CHIP NETWORK 47	
RB303	1-239-409-11	RES, CHIP NETWORK 47	
RB304	1-239-409-11	RES, CHIP NETWORK 47	
RB305	1-239-409-11	RES, CHIP NETWORK 47	
RB306	1-239-409-11	RES, CHIP NETWORK 47	
RB307	1-239-409-11	RES, CHIP NETWORK 47	
RB308	1-239-409-11	RES, CHIP NETWORK 47	
RB309	1-239-409-11	RES, CHIP NETWORK 47	
RB310	1-239-409-11	RES, CHIP NETWORK 47	
RB311	1-239-409-11	RES, CHIP NETWORK 47	
RB312	1-239-409-11	RES, CHIP NETWORK 47	
RB313	1-239-409-11	RES, CHIP NETWORK 47	
RB314	1-239-409-11	RES, CHIP NETWORK 47	
RB315	1-239-409-11	RES, CHIP NETWORK 47	
RB316	1-239-409-11	RES, CHIP NETWORK 47	
RB317	1-239-409-11	RES, CHIP NETWORK 47	
RB319	1-239-409-11	RES, CHIP NETWORK 47	
RB320	1-239-409-11	RES, CHIP NETWORK 47	
RB321	1-239-409-11	RES, CHIP NETWORK 47	
		<CRYSTAL>	
X3101	1-767-614-21	OSCILLATOR, CRYSTAL	

REF. NO.	PART.NO	DESCRIPTION	REMARK
		< MISCELLANEOUS >	
⚠	1-416-466-11	COIL, DEMAGNETIC	(KV-28DS60)
⚠	1-416-769-11	COIL, DEMAGNETIC	(KV-32DS60)
	4-425-032-00	MAGNETIC, DISK; 10MM	
	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM	
⚠	X-4560-138-1	FBT ASSY, NX-4602/J1B4	
	1-529-153-11	SPEAKER (4.8X20CM)	
	1-529-144-11	SPEAKER (13CM)	
	1-452-896-11	COIL, NA ROTATION (RT200)	
⚠	1-571-433-21	SWITCH, PUSH (AC POWER)	
⚠	1-776-204-11	CORD, POWER	
	1-693-339-21	TUNER/VIF (UK)	
⚠	8-737-785-05	PICTURE TUBE (W66LLX101X)	(KV-28DS60)
⚠	8-735-044-05	PICTURE TUBE (W76LLZ010X)	(KV-32DS60)
⚠	1-451-463-21	DEFLECTION YOKE (Y28RCV)	(KV-28DS60)
⚠	1-451-462-21	DEFLECTION YOKE (Y32RVC)	(KV-32DS60)
⚠	8-453-015-11	NECK ASSY, NA2913-M	
⚠	1-251-317-31	CAP ASSY, HIGH VOLTAGE	
**********			
		< ACCESSORIES AND PACKAGING MATERIALS >	
	4-204-616-61	MANUAL INSTRUCTION	
	X-4946-413-1	FRAME ASSY, GRILLE	(KV-32DS60)
	1-537-763-11	TERMINAL BOARD	(KV-28DS60)
	1-765-561-11	CORD	(KV-32DS60)
	4-960-366-01	SCREW (+P 3.5X9.5)	(KV-32DS60)
	4-977-191-01	CABINET SPEAKER	(KV-32DS60)
	4-979-187-01	SCREW (+P) (4.2X13)	(KV-32DS60)
*	4-029-168-01	BAG PROTECTION	
*	4-204-457-01	INDIVIDUAL CARTON	(KV-28DS60)
*	4-204-378-01	INDIVIDUAL CARTON	(KV-32DS60)
*	4-204-451-01	CUSHION (UPPER) (ASSY)	(KV-28DS60)
*	4-204-387-01	CUSHION (UPPER) (ASSY)	(KV-32DS60)
*	4-204-454-01	CUSHION (LOWER) (ASSY)	(KV-28DS60)
*	4-204-388-01	CUSHION (LOWER) (ASSY)	(KV-32DS60)
		< REMOTE COMMANDER >	
	1-418-047-11	REMOTE COMMANDER (RM-891)	